A Selected Bibliography of Publications by, and about, Paul Adrien Maurice Dirac

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Title word cross-reference

$(1 + 1)$ [Das93]. $(2 + 1)$ [JM99]. $-1/2$ [CT67a]. $-1/2, 1/2, 3/2, 5/2$ [Mac98]. $-\frac{1}{2}, \frac{1}{2}$ [CT67b]. 1 [CG07]. $1 + 1$ [Fei02]. 1/2 [CT67a, FA01, Ogu96, dB51, dB52a]. 2.7° [Noe73]. **$250.00** [War96]. **$26.00** [Ryc17]. **$29.95** [RS10, Dys10]. 3 [RRS06]. $3 + 1$ [Nak00]. $3 + 2$ [Dir63b]. 3/2 [CT67a]. **$44.50** [Dre90]. **$49.50** [Sch85]. **$7.50** [Suc67]. $_6$ [DN96]. α [BM98, LT04]. $\alpha, \beta, \gamma, \delta$ [Som36]. c [IC04, MBS02, Mag15]. D [DSP03]. δ [DEŠ89, IP56, IP57, Lut07, Sch72]. e [IC04, MBS02]. e^2 [CP68]. ϵ [GGS04]. $\frac{3}{2}$ [CT67b]. G [AWW+81, Dir75f, Dir78b, Dir80g, Dir82f]. G_F [FA10]. $\mathrm{Gr}_2(\mathrm{C}^{m+2})$ [Mil98]. $H^s(\mathbf{R}^3)$ [EV97]. $\hbar$ [IC04]. m_p/m_e [BBSF10, FK07]. $\mathcal{F}_p(\eta) = 1/\Gamma(p+1)\int_0^\infty [\epsilon^p/(1+e^{\epsilon-\eta})]d\epsilon$ [GFG01]. $SU(2)$ [yRSBSV99]. H_2 [SBK+08]. N [Ata89, KY01, MHN98, MB90, Mor85, Won90]. $\nabla^2 n/n$ [MHN98]. $\nabla n/n$ [MHN98]. π [JT10]. q [CPV10, JT10]. R [Szm98, Szm99]. $\mathbf{R}^n$ [Bet83]. r^t [BBR85]. $s > 1$ [EV97]. SL(2, $\mathbf{C}$) [Hos82, Hos83]. SO(4) [LH86]. SO$(4, 1)$ [BC69]. sp$(4, \mathbf{R})$ [Lee95]. SU(N) [LH86]. SU_2

[Mal75c, Yan78b, Yan78a].

-algorithm [GGS04]. **-dimensional** [Das93, KY01, MB90, Nak00, Won90]. **-exponential** [JT10]. **-exponentials** [CPV10]. **-function** [Lut07]. **-functions** [IP56, IP57]. **-invariant** [Hos82, Hos83]. **-matrix** [Szm99, Szm98]. **-shell** [DEŠ89]. **-space** [JM99]. **-Uniform** [RRS06].

/van [Sch85]. **/Vigier** [Sch85].

0-521-31911-0 [Ble86, Sch85]. **0-521-34013-6** [Hen89]. **0-521-34017-9** [Hen89]. **0-521-36231-8** [War96]. **0-521-38089-8** [Hen91].

1 [Dir43a]. **1911** [Meh75]. **1933** [CCJ+34]. **1933/Chadwick** [Ano51]. **1935/1936** [Ano51]. **1945** [Pau45]. **1948** [Hov96, Dar96]. **1959** [LT62]. **1960s** [Mla98]. **1968** [Sal69]. **1971** [DPI71]. **1972** [Dys74, IPM73, Meh73]. **1973** [Kur73]. **1975** [DHS78]. **1978** [KPS+78]. **1979** [Ruf82]. **1984** [Cas85, DP86]. **1988** [SDEW90]. **1993** [BCEP94]. **1994** [dG97]. **1999** [F+00]. **1D** [BJ03].

2 [UM86]. **20.X.1984** [Smo84]. **2002** [BB03]. **2009** [Pet11]. **2013** [Ano13]. **20th** [Gun15, Meh73, SS03, Wal09, Koz90, Med90]. **21st** [RCC+06]. **22** [CCJ+34]. **25** [Ble86].

3 [Ryc17]. **30.00** [Hen89]. **35** [Hen91]. **39** [Szm99].

42 [Pei42].

50 [Ben34]. **50th** [DS83].

7.80 [Deh36]. **745** [Goa95, Goa97]. **779** [Mac98].

8.VIII.1902 [Smo84].

'91 [Wat91]. **978** [Ryc17]. **978-0-300-20998-3** [Ryc17].

AB4 [Pei42]. **AB4/42** [Pei42]. **Abb** [Deh36]. **Abdus** [Bel73, Ell91]. **abelian** [KM84]. **abermals** [Haa34]. **Abnahme** [Tak31]. **Abschlusses** [Pau25]. **absolute** [Dir53b]. **Absorption** [Dir27d, MWF07, Sei36, SCPA04, DH32a]. **abstract** [Jär64, Tha88]. **abstrakten** [Jär64]. **academia** [Buc80]. **Academic** [Suc67]. **Academy** [Dir80c]. **accelerating** [UK82]. **acceptance** [Dir71a]. **Acclaim** [Ano30]. **According** [Inf53a, MRB75]. **account** [Alp73]. **Accuracy** [Neu33]. **Accurate** [BCJT16, Rob85, SM91, SFVW95, YG77, MN97, NM01]. **achievement** [Hoy92]. **Achinstein** [L.88]. **Across** [Bus10, DP03, II08]. **action**

[Dir74a, Tol98]. **actions** [Lan01]. **activity** [Meh87b]. **adaptation** [SM35]. **Address** [Dir80a, Pei87a, Wig87a, Wig96a, Wig96b, Haw98, Sno73]. **ADI** [RSK99]. **adiabatic** [Dir25a, Dir25b]. **adjoint** [Zor80]. **adjointness** [KY01, LR79]. **admitting** [KM84]. **Adrien** [Ano52, Ano83a, Ano83b, DP86, Dir74d, Hal85, Hen89, Kra06a, KW87, Pei85, Ram89, Sch88, Stu88, Wig88]. **Advance** [Ano34b]. **Advanced** [Dys07a]. **adventure** [MB11b]. **Aesthetic** [McA90]. **aether** [Dir54a, Dir51b, Dir52a, Dir52b, Dir54d, CO03]. **Aethers** [Dir53a, Dir53a]. **af** [BR64, RRK$^+$64]. **After** [Dir60b, Kae48]. **against** [Noe73]. **Age** [Stu18, Meh72, Meh87b]. **Aharonov** [Tam03, Vil95]. **Aid** [CMO00]. **Airplane** [GD10]. **Akademische** [Deh36]. **al** [Sch85]. **Alapveto** [Dir78a]. **Albert** [Ano05, HE82, Kle05, PS79]. **alcohol** [Mag15]. **algebra** [Bor85, CDK90, Cra85, Dir26b, DW09, Ham84, IKRT89b, Lee95, MB91, Mar88, yRSBSV99, Nas84, Ten68, Vrb94]. **Algebraic** [BN72, PSA94, QGW01, RR93, Wat91, AT94]. **Algebraical** [Ano00]. **algebras** [ML93]. **Algorithm** [IKRT89a, GGS04, PSA94, TM85, Goa95, Goa97, Mac98]. **állandôk** [Dir78a]. **Allen** [Tiw12]. **allows** [GGS04]. **Almost** [Tau61b]. **alpha** [BMS02b, KM04, MBS02, Bar02]. **alsidighed** [Dir64g]. **Alternative** [Aug95, Bar81, Dra23]. **Alwyn** [Ble86, Tor87]. **Amateur** [Har01]. **Ambition** [Jon08]. **amplitudes** [Eeg80, NM84]. **Anachronism** [Sta12]. **analogie** [dB32b]. **analogies** [FG22]. **analogy** [Dir45b, dB32b]. **Analyses** [Dar91, Dar92]. **Analysis** [LU31, Tau63b, BNB94, CK90, CK91, Lig87, LW75, MB90, MB91, Mar88, Pon05, de 89]. **Analytic** [Tu91, Fer86, KY93]. **Analytical** [BDM81a, Kra81a, Lan05b, Nak97]. **Anderson** [Ano51]. **anisotropic** [Por95]. **Annahmen** [Dir77a]. **annihilation** [Dir30e]. **anniversary** [DS83]. **announcement** [Lub75]. **anomalous** [BB85, Beh85, Dat04, Ogu96, Rou84]. **Anpassung** [SM35]. **Ansatz** [CH02]. **Anschluss** [Jär64]. **anti** [Dit15]. **anti-Dirac** [Dit15]. **antilinear** [HW90]. **Antimatter** [Clo10, Dir78h, Jac98]. **Anton** [Fis10a, Fis12a, Fis10a, Fis12a]. **apart** [Far09a]. **Application** [Dav98, DFPP43, Dir45a, LU31, Tiw12, Dir26f, LR79, LRK80, OP95, SMI83, Wig01, WY85, Dav98, PFD43]. **Applications** [CO03, ERW75, FLS76, RL68, SS11, Tha88]. **Applied** [F$^+$00, LR59, Kim80a, Kim80b, MD88]. **Appointed** [Ano34b]. **appreciation** [Har01]. **Approach** [Bro05, Fey48, FBD05, CH02, Dir78f, DSP03, IT84, Jun97, Leh91, Nak97, OP95, RdO07, RdO16, SBZ90, Bri18]. **approaches** [Dat04]. **approximants** [Rod80]. **Approximate** [Dir30a, Dir43a, IS10a, PFD43, SM35]. **Approximating** [CK90, CK91]. **Approximation** [QGW01, Inf53b, SS11]. **Approximations** [CT67b, SBB$^+$62, CT67a, Fer86]. **Äquivalenzverbot** [JW28]. **Arbeit** [Hei34b]. **Arbitrary** [Dir43a, IKRT89b, Kat00, PFD43]. **Archimedes** [Pic08]. **Aristole** [vW02]. **Aristoteles** [vW02]. **arrival** [Dir82b]. **Arthur** [Deh36]. **Asim** [Ble86, Tor87]. **Aspects** [SW72, Meh75, Pai98, Bel73]. **assessment** [SS03]. **Associated** [GZM05]. **association** [HC87]. **Assumptions** [Dir77a]. **astounding** [Haw11]. **astronomers** [Car01].

Astronomia [RCC+06]. **astronomical** [SV90]. **astronomy** [FF91]. **Astrophysics** [Tau63c, IPM73]. **Asymptotic** [BG91, Bou08, Din58, IM95, Nov74, Wal76, CK78, GFG01]. **asymptotically** [Ogu96]. **asymptotics** [Doa91, NP96, SM03]. **atmosphere** [Dir25d]. **Atom** [Ano30, Dir26e, Dir67c, EKI94, Far09b, Har28, Pau25, Rod19, Bun52b, Dat04, Dir30c, MR10, Sto94, RS10, Dys10, Cas10]. **atomaren** [Sei36]. **Atomic** [BBD+46, Dir84b, FR13, HSD34a, Ish90, McW73, Pei97, Rob85, Sei36, SH59, WBR76, Bel91, CCJ+34, DSK72, Dir36a, Dir55f, LBNZ98]. **atomique** [Dir48e]. **atomiques** [CCJ+34]. **átomo** [Bun52b]. **Atoms** [CR12, Dat95, Csa81, Dir25c, DH32a, DFW99, Tiw12]. **Atomtheorie** [Ben34, HSD34a, Wil36]. **attached** [Pei42]. **Attraction** [KK10]. **Aufl** [Deh36, Haa34]. **August** [DP86, F+00, Zic88, DHS78]. **Ausgestaltung** [Lan30]. **auspices** [CCJ+34]. **Australia** [DHS78]. **autographs** [PKKL09]. **autoionization** [ACM10]. **Automata** [Tau63b]. **automatic** [Nil03b]. **automorphism** [Cra93]. **autres** [Kle05, Ano05]. **Award** [Ano33, LW34]. **Axisymmetric** [JP73].

b [Sch85]. **background** [CGKS94, CV02, Fei02, FSY00, Han99, Por95, SS98, YS03]. **bag** [Fei02]. **Baltimore** [L.88]. **bang** [Das96, YS03]. **banquet** [Sno73]. **Barbara** [GG76]. **Bargmann** [MS95]. **Bargmann-** [MS95]. **Barut** [Ble86, Tor87, Sch85]. **Based** [EKI94, AT07, FA10, Haa34]. **Basic** [Dys10, RS10, Dir69a, Jor52, Jor55, MS87]. **Basis** [Dat95, QGW01, Dir29a, Dir38b]. **Be** [Ano30, Far03, Dir62a, Dir69b, Dir70a]. **Beautiful** [Far03, Wri16]. **Beauty** [Dir54b, Dir79a, HK93, McC04, Smo93]. **became** [Cri18]. **Beck** [Nis35a, Nis35b]. **Bedeutung** [Jor59a, Smo93, Som36]. **before** [Hen83]. **Began** [Kae48]. **behavior** [Son99]. **behaviour** [CK78]. **behind** [Pic08]. **Behram** [L.88, Ram89, Hen89, Sch88, Stu88]. **Belfer** [Suc67]. **Belief** [Dir76a]. **believe** [Dir80h]. **belleza** [Bas08]. **Bemerkungen** [Hei34b, vN28, Hei34a]. **Bergmann** [GNH78, Kru94, TM85]. **Berichtigung** [Hei34b]. **Besprechung** [Hei30a]. **Bessel** [Car92]. **Bethe** [CH02]. **Between** [Stu18, Bal85, Bok04, Dir25c, Dir39c, Dir45b, dB32b]. **Beyond** [Rod19]. **Bibliography** [RZ80]. **Bicentennial** [Pet11]. **Big** [Hür22, YS03, Das96]. **Binary** [VKA21]. **biographical** [Dal87b]. **biographies** [Ano65]. **Biography** [Dre90, Hen91, Deb13, Kra90, Sch91b, Bro91, Dar92]. **biology** [BP79b]. **Birth** [BH83a, BH83b, RCC+06, Sch94b, ACM10, BH82]. **birthday** [BvdM83, Cha73]. **bis** [Fis10a, Fis12a, vW02]. **bispinor** [Cra85]. **black** [FSY00]. **Blackett** [Dir84a]. **Body** [Bus10, CV90, GL92, II08, LC98, SCSB93, Sem93]. **Bohm** [AW17, Col12, Fab22, Tam03, Vil95]. **Bohr** [Lak96, Bal85, BR64, Bok08, Dir24b, Dir28a, Dir64g, Dir67d, Kra17, MR82d, MR82e, RRK+64, Roz67]. **Bohrs** [Dir64g]. **Boltzmann** [Faz15]. **Bondi** [Dir52a]. **Bonn** [Wat91]. **Book** [And88, Bel73, Ble86, Bri18, Bro91, Cas10, Dar96, Dav36, Dra23, Dre90,

Dys74, Dys10, Ell91, Eps35, Ett31, Goe16, Hen89, Hen91, Hov96, Kib98, Kil76, L.88, LJ31, Pau30, Pol58, Ram89, RS10, Ryc17, Sch69, Sch85, Sch88, Sch91b, Sti13, Stu88, Suc67, Tem35, Tor87, War96, Jär64]. **Books** [Dys10, L.88, K.L88, RS10]. **boomerons** [Leo80]. **Boosting** [CKPT04]. **Born** [Dir60d, Gre05]. **Boronlike** [VIK98]. **Bose** [BBR03, Din58, Faz15, Gau93, Kap40, Kos86]. **bosons** [Bel85, RM96]. **both** [Cra88]. **Bound** [BB85, RU81, Cor70, IS10a, ZQ90]. **bound-state** [Cor70]. **Boundary** [GZM05, JP73, FGM$^+$96, FSS98, RS87]. **Bounds** [SV90, SV95, MS95]. **Bra** [Rob66, D'A02, Pru73]. **bracket** [FK70, Lan72, MS68, Rug88, Wot91]. **brackets** [FLS76, Sei99]. **brain** [Lip87]. **Branch** [Bun82]. **bras** [Jau72]. **Brave** [HW06]. **Brecht** [Sch99]. **Breit** [EKI94, Ish90]. **brief** [Pol87b]. **British** [Wal09]. **Broglie** [AW17, Ble86, Bou01, Col12, Deh36, Fab22, Haa34, Sch85, Tor87, Bou01, BVV84, Dav98, Haa34, dBDW$^+$84]. **Broken** [Pei92, Dir73c, Dir73d]. **Brownian** [AW95]. **Brueckner** [MHN98]. **Brussels** [CCJ$^+$34]. **Bruxelles** [CCJ$^+$34, Far01]. **Buch** [Jär64]. **Buchbesprechung** [Deh36, Hei30b, Wil36]. **Bücher** [Ben34]. **bucket** [BP95]. **bulk** [vN96]. **Bundle** [Bri18, Oev88, RdO07, RdO16]. **bundles** [Gre77, UB83]. **Bunge** [Hin77]. **Bunin** [Ano33].

C.W [Hen89]. **Cabrera** [Lub82]. **Calculated** [Dat95]. **Calculation** [IKRT89a, SBB$^+$62, Vul03, NM84, Pic89, Sag91]. **Calculations** [DFW99, Eeg80, Ish90, QGW01, VIK98, Dir55c, EG84, IKRT89b, IKRT91, YG77]. **calculus** [Eeg80]. **California** [Ano34a]. **called** [Gol05]. **Calogero** [MS95]. **Calogero-type** [MS95]. **Cambridge** [Ble86, Dre90, Hen89, Hen91, Pei92, Sch85, War96, Ano30, Ano24c, Dir37c, EP72, Hen84, KN03, Pei87a]. **Can** [Dir69b, Dir70a]. **canonical** [Bel85, BC69, Olv86, PSA94]. **Carolina** [BCEP94]. **Cartan** [DMH85]. **Cartesian** [SC91]. **Case** [Bou08, Pas12, Pic81, Kra81a, RSK99]. **case-study** [Kra81a]. **cases** [All03]. **cat** [Lam87]. **Catania** [RCC$^+$06]. **Cauchy** [Cha72]. **Celebration** [Hen89]. **Centenary** [BCEP94, Hen89, GC97, SS03, Wil05]. **Centennial** [RCC$^+$06, BB03, HE82]. **Center** [KPS$^+$78, KP83]. **Central** [Har28, SM91, SCSB93]. **Centre** [Meh73, Ruf82, Sal69]. **centrifugal** [IU86, YI90]. **centrifuge** [Dir42c]. **Century** [Gun15, RCC$^+$06, Bra09, CM86, Meh73, SS03, Wal09, Wei77, Koz90, Med90]. **Certain** [Dir79c, Wal76, Gre05]. **certificates** [Ano10]. **Chadwick** [Ano51, Dir75e]. **challenge** [CT12]. **challenges** [F$^+$00]. **champ** [Dir39a]. **Change** [Dir79e, Gam67a, Tel48, Wes80, Wil58]. **Changing** [Gun15]. **chapter** [Kra15a]. **Characterization** [YYH$^+$01]. **characters** [Coq85]. **Charge** [Dys67, Gam67d, Per67]. **charged** [AW17, Bor85, BG90, FA01, LMV91, RU81]. **che** [Fer24]. **Chebyshev** [CT67a, CT67b]. **Chemistry** [Bun82, DN96, Len14]. **Chemists** [Sim02]. **chiral** [Fin00, Wot91]. **chromodynamics** [F$^+$00]. **chronology** [Rec97]. **Chronon** [GF02]. **Chunk** [BMP14]. **CI** [DN96]. **circle** [All03, BR64].

Circulation [Bun52a]. **Claim** [Sim02]. **Clarifying** [GG11]. **Class** [BG91, DK89, EF77, FM75, IV85, IK91, KL90, Wil91]. **Classical** [BG90, Dir38a, LBNZ98, Roh60, Bok04, Dir33a, Dir45b, Dir49a, Dir51c, Dir51d, Dir52d, Dir54c, FK70, GS79, MS68, RU81, Sno73, IU86]. **Classically** [GPS86]. **classification** [KLMW88]. **classmate** [Cri18]. **Clifford** [Bri18, CDK90, ML93, PP71, RdO07, RdO16, UB83, Vrb94]. **Closed** [BBR85, Mor85, Bok04]. **Closed-Form** [BBR85]. **closer** [BBSF10]. **Cloud** [Inf53a]. **Cluster** [EKI94]. **clusters** [EG84]. **co** [RRK$^+$64]. **co-workers** [RRK$^+$64]. **codes** [DSK72]. **colleagues** [BR64, Roz67]. **Collected** [Dar96, Hov96, Tau61a, Tau61b, Tau63a, Tau62, Tau63b, Tau63c, War96, Dal95, Wig96d, Dir02, Dir03b, Dir04, Dir05b]. **Collection** [CMO00, Bus10, Koz90, CMO00]. **College** [Dir37c, Jef87]. **collisions** [Dir27e]. **Colloquium** [ACM10, Bat07, UM86]. **combined** [HD77]. **combs** [Ric03]. **Commemoration** [RCC$^+$06, Buc80]. **Comment** [BF12, Kha86, MWF07]. **commentary** [DP97]. **Commission** [BBD$^+$46]. **Committe** [Ano67]. **commutation** [Bel85]. **commuting** [KLMW88]. **compact** [BT90]. **Comparison** [QGW01, Dat04]. **Complete** [GFG01, Goa95, RZ80, KLMW88, KL92]. **completion** [MR00, Pau25]. **Complex** [Dir37a, Gre77, Sla29, Eeg80, Hes75, Mar88, Nas86, Pau25, RA11]. **comprehensive** [Her18]. **Compton** [Dir25d, Dir26f, Dir27a]. **Computation** [Fuk14, Goa95, MS38, Wat91, Doa91, Gau93, TM85]. **computational** [Len14]. **computations** [AT07]. **Computer** [F$^+$00, IKRT89b]. **Computers** [Tau63b, Faz15, Len14]. **Computing** [Ano18, Bel91, F$^+$00, BDM81b, BDM84]. **concept** [Dir78e, Kra81a]. **Conception** [Dir79c, Dys74, Dir73a, Meh73]. **Conceptual** [Dun12]. **Concluding** [Wig96b]. **conclusions** [Jor66]. **condition** [Dir24b, Her18, YI90]. **conditions** [Dir25c, Dir62a, FGM$^+$96, FSS98]. **Conduction** [DuM28]. **cone** [Fin00]. **conféerence** [Dir48e]. **Conference** [BCEP94, Dor82, IPM73, Kur73, Pet11, RCC$^+$06, DPI71, Far01]. **conferences** [Meh75]. **confined** [Das93]. **Confirmation** [DuM28, Jor62b]. **Conformal** [MSB92, Son99, Dir36c, IU86]. **congruences** [KM84]. **conjecture** [CT83, CPV10]. **conseil** [CCJ$^+$34]. **Consequences** [Dir78b, HE06, Jor62a, Jor71, Dir75d, Jär64, HE35]. **Conservation** [Bou85, GS79, GLR14, Dir36a, LCH10]. **Conserved** [Ker83, CV02, SES82]. **Considerations** [Coh70, Fer24]. **Considerazioni** [Fer24]. **Consistency** [GH75]. **Consistent** [Ish90, EG84, MHN98, YL09]. **Consistently** [BSW88]. **Constancy** [Irv83, Per67]. **Constant** [Ano12, BS67, Bek86, BF12, Dir72f, Dir75b, Dir79e, FK07, JRF06, KM12, Mar84, MWF07, Noe73, Rob83, Sch91a, SCPA04, Tel72, VKA21, WB78, WFC$^+$99, Wil93a, WW86, Alp73, AG03, BBSF10, Car01, CKYY07, Cho81, Dir78c, FA10, Hal78, Han99, Inf61, Inf63, Lev80, MG87, Nor86, Ogu96, Peg77, Sch99, ZdSS91]. **Constants** [Gam68, Kra19, SV95, Tel48, Tel72, Wil58, Alp73, Bar02, BMS02a, Car01, CGK72, Dic59, Dir37b, Dir73b, Dir78a, DOV02, Dys72, Dys78a, Dys78b, DFW99, ES10, GT85a, GT85b, GT86, IC04, Jor37, Kha86, KPW86,

LMSV08, Nil03a, Nor86, Pet85, Pet88, SV90, Uza03]. **Constrained** [Tay87a, BNB94, GB90, Sei99]. **Constraining** [JRF06, SBK+08]. **constraint** [CY91]. **Constraints** [sC78, Lee21, Pic81, VKA21, GNH78, Han99, IC04, Kru94, LMSV08, Oev88, Olv86, TM85, YS03]. **construction** [Nas97]. **Constructive** [Sta12]. **Contact** [Löw64, DEŠ92]. **contain** [Fer24]. **container** [Dir42a, Dir42b]. **containing** [DW09]. **Contemporary** [Sal69, Sal69]. **contengono** [Fer24]. **Context** [Sch91a, Pet11]. **Continues** [Ble86, Sch85, Tor87, BVV84, dBDW+84]. **Continuous** [Tau62]. **continuum** [Bel91]. **Contribution** [Ano30, Meh87a]. **contributions** [ES10]. **Control** [GZM05]. **Controversy** [Pic81]. **convection** [CG07]. **Convergence** [Rod80, Tam03]. **Converging** [Din58]. **conversations** [Bri95a, BP79b]. **Coordinate** [Neu33]. **coordinates** [Dir59d, SC91, SC92a, Vil90b]. **Copley** [Ano24a]. **Coral** [IPM73, KPS+78, KP83, Per80, DPI71, Kur73, Kur87b]. **Corepresentations** [HW90]. **Cornelius** [BCEP94]. **Correction** [Ehb23, Hei34b]. **Corrections** [Kir97, Csa81, GF02]. **corrector** [Doa91]. **Correlation** [EKI94, MHN98]. **Correspondence** [Ano67]. **Corrigendum** [CT67a]. **coset** [BILP03, OP95]. **Cosmic** [BS67, WBR76, Han99, YS03, Mil97]. **Cosmo** [Kra82]. **Cosmo-Physics** [Kra82]. **Cosmological** [CO03, Dir74b, IRV+08, Sch91a, BM98, BMS02a, DSW08, Dir37b, Dir78c, Dir78f, Hal78, Jor59b, Por95, ZdSS91]. **Cosmologies** [Kra06b, GT85a, GT85b, GT86]. **Cosmology** [Alp73, BBBM90, Dic61, Dir61a, Dir78g, Dir05b, Gam67c, Gam67b, Goe16, Kra82, Rei72a, Rei72b, Dir38b, Dir72b, Jor52, Jor55, Kra16, Nor65, Nor90, PD62, ZdSS91]. **Cosmonumerology** [Kra91b, Kra91a]. **cosmos** [HW06]. **cotangent** [Oev88]. **Coulomb** [EKI94, Har28, WY85, BK76, BM70, BBR85, BJ03, CH02, DEŠ92, DSP03, Hos83, Hos87, Hyl84, IS10a, IS10b, IM95, Kim80b, yRSBSV99, RU81, ROB64, SWO76, Vil95, WY84, Won90, de 89]. **Coulomb-like** [IS10a, IS10b]. **counts** [Lub82]. **Coupled** [BSW88, EKI94, BB85, Cha72, LC98]. **Coupling** [Löw64, DST92, GT85a, GT85b, GT86]. **couplings** [DSW08, YZ08, YL09]. **course** [Zic88]. **covariance** [Bel85, UB83]. **Covariant** [UL31, CV90, CY91, LC98]. **Creation** [HND+62, CM86]. **Creativity** [Sch94c]. **creators** [Str11]. **criteria** [DSK72]. **Critique** [Ano05]. **cuántica** [Dir67b, Dir68c, Dir69e]. **cuántico** [Dir54a]. **cubic** [Pen99]. **cultural** [HE82]. **Curies** [Kae48]. **Current** [Pas12, Bor85, Jor59b, LW78]. **Currents** [Ker83, SES82]. **curved** [BO92, Ran87, Rüd84, Vul03]. **curvilinear** [SC92a, Vil90b]. **cylindrical** [BR97, Vil90b]. **Cylindrically** [BSW88]. **Czech** [Dir59b].

d [Jor66, CG07]. **d'Albert** [Buc80]. **Dalitz** [Dar96, Hov96, War96]. **Danish** [BR64, Dir64g, RRK+64]. **dans** [dB32a, dB52b]. **darkest** [HW06]. **darling** [Dir87a]. **Data** [SV95, CG07, Cor70, Han99, SV90]. **dataset** [Lee21]. **De-mystifying** [Lut07]. **dead** [Dir65a]. **Debate** [Pas12, Bok08, HSZ76]. **Debye** [BCK97]. **December** [BB03, BCEP94]. **declining** [Kra15a]. **Decoding** [RS10]. **decrease** [Tak31]. **Deduction** [BI34, BI34]. **déduit**

[Bor49]. **déecembre** [Dir48e]. **Déecouverte** [Dir48e]. **Deep** [Kol67]. **Deep-Sea** [Kol67]. **deepest** [Bar02]. **déeveloppements** [Dir48e]. **défient** [CT12]. **Defining** [Mla98]. **Definite** [Dir79b]. **Deformations** [FLS76]. **degeneracies** [LMV91]. **Degeneracy** [BM70, JM99, MC70]. **Degenerate** [DuM28, Can98]. **degli** [Fer24]. **d'Einstein** [PS32a, PS32b]. **del** [Bun52b, Maj37, Wei77]. **delayed** [Rod80]. **Delivered** [Wig96a, DHS78, Wig87a]. **dell** [Maj37]. **della** [Wei77]. **Delta** [JP73, Lam69, Lam70, Nov74, Wal76, ABR06, BMP14, CPV10, Deb13, GGS04, JT10, LW75]. **Denied** [Ano54]. **Dennis** [Bin00]. **Dennison** [Ano67]. **Dense** [Ric03]. **densités** [dB32a]. **densities** [Cra85, dB32a]. **Density** [Csa92, Dir43a, Rij66, Csa81, Dir30d, Dir42d, Kos86, MHN98, PFD43, SS11, Wig01]. **Department** [Hal78]. **dependence** [Rob85]. **dependent** [AME14, BK10, IS10b, RSK99]. **Derivation** [Eva04, Wot91, Riv94]. **derivatives** [Cor70, GZDA01, MKK05]. **derive** [Cra88]. **derived** [Bor49]. **description** [Car94]. **design** [DSK72, Tau63b]. **detect** [GGS04]. **Detecting** [IRV$^+$08]. **Determinants** [FGM$^+$96, Lan01]. **Deuterium** [CR12]. **Development** [Aur71, Dir73a, Jor49, Meh73, Deb13, Dir71a, Dir73b, Dir74c, Dir78a, Dir81b, Meh75, Meh87a]. **Developments** [Ano62, Dir46, Dir79d, Dir73g, Per80]. **devices** [MZF$^+$12]. **diagonal** [SCSB93, Wig01]. **diagonalization** [Rou84]. **Diagrams** [Wüt11b]. **Dialogue** [Kra91b, Kra91a, Bel99]. **Diatomic** [FK07, BBSF10, YG77]. **dice** [MB11b]. **Dicke** [Dir61a]. **Did** [Far10]. **Difference** [LR59, QGW01]. **Differential** [Coq85, GZM05, Olv86]. **differentiation** [Nil03b]. **Difficulties** [Ano34a, Dir47a, MR82d, MR82e]. **diffraction** [Ric03]. **diffusion** [CG07]. **dilations** [All03]. **dilaton** [CKYY07]. **dimension** [IKRT89b]. **Dimensional** [Sch31a, Sch31b, AKV83, BV85, Das93, FA01, IT88, IU86, KY01, Kam86, Kis98, Lég95, MB90, Nak00, NP96, NdlC08, RSK99, Ten68, Won90]. **dimensions** [Car01, DSP03, Fei02, Kha86, KPW86, Zas89]. **diminishing** [Jor62b]. **dinner** [Jef87]. **Dipartimento** [RCC$^+$06]. **Dipole** [Roz20, Pos84]. **Dirac** [And88, Ano51, Ano13, BB03, Ben34, Ble86, Bri18, Bus10, Cas85, Cas10, CT67a, CMO00, DP86, Dal87b, Dar96, Deh36, Dys10, Ehb23, Ell91, Fis10b, Fis12b, Goe16, Haa34, Hei30b, Hen89, Hen91, Hov96, Jär64, Kib98, KBN83, Lak96, Lan87a, Meh91, Neu33, PR86, Pau30, Pei92, RS10, Sch85, Sch91b, Smo93, Smo84, Stu88, Suc67, Szm99, Tiw12, Tor87, Tu91, War96, Wig96a, Wil36, dB51, dG97, AD87, AW95, All03, All04, AME14, AKV83, AW17, Ama68, AC72, AT07, Ano30, Ano33, Ano34a, Ano34b, Ano52, Ano54, Ano67, Ano75, Ano83a, Ano83b, Ano85, Ano94, Ano02, Ano08, Ano10, Anoxx, Ant69a, Ant69b, Ara93, ABR06, AT94, Ata89, Ati98, AT99, Aug95, BSW88, BO92, BOS96, BK10, BILP03, Bal85]. **Dirac** [BC78, BDM81a, BDM81b, BDM84, BCJT16, BNB94, Bar81, BK76, BvdM83, BVV84, BB85, Bas08, Bat00, Bat07, BSW98, BN72, Beh85, Bel85, Bel91, Bel73, Bel82, Bel94, BMP14, BCK97, BM70, BBR85, Bet83, BBR03, BtGW95, BG91, Bok04, Bok08, BR97, Bor85, BI34, Bor52, Bou85, Bou01, Bou08, BC69, Bri95b, Bro77, BR87, Bro06, BJ03, BP79a, Bue05, BT90,

Bun52a, Bun52b, BV85, CT83, Can98, Car92, Car94, CG07, CO03, Caw69, Cha72, Cha73, CGK72, sC78, CPV10, CH02, CDK90, CGKS94, CH16, Cla94, CT67b, CK90, CK91, Coh70, Col12, Coq85, Cor70, Cor07, CV02, CV90, CY91, Cra85, Cra88, Cra93, Cri18, Cri76, Csa81, Csa92, D'A02, DJ95, Dal87a, Dal95, Dar90, DK89, Das93, Das96, Dat95, Dat04, Dav98]. **Dirac** [DSK72, Dav36, DN96, DL82, Deb13, Dic61, DMH85, Din58, Dir61a, Dir74d, Dir80a, DRFS80, DS83, DEŠ89, DEŠ92, Dit15, DST92, Doa91, DSP03, DW09, Dra23, DuM28, DRF17, DP03, DR93, Dys74, Dys87, Dys07b, EP72, Eeg80, Ehb22, EM33b, EM33a, EF77, EKI94, Eli87, ERW75, EG84, Eps35, EV97, Esp12, Ett31, Eva04, Fab22, FA01, FG87, FGM+96, FSS98, Far09a, Far09b, Far10, Far16, Faz15, Fei02, FM75, Fer49, Fer86, FW87, Fin00, FSY00, Fio06, FLS76, FK70, Fre87, Fre95, Fuk14, FR86, FG22, FZ91, GG02, GLMR94, GL92, GF02, GB90, Gam33, Gar84, GFG01, Gau93, GJEF10, Gin09, GB13, GS84, GS79, GD10, Goa95, God98, GG11, Gol05, GG51, GZDA01, Goo55, GZM05, GNH78, Got11, Gru00, GH94, GGS04, GH75]. **Dirac** [Haa34, Hal87, Hal78, Hal85, HD77, Ham84, HW90, HC87, Hau72, Haw98, Hei30a, Hei34b, Hei34a, HE35, HDW75, HE06, Hen83, Her18, HJL00, Hes73, Hes75, HL38, Hil92, Hin77, HJKS91, Hor11, Hos82, Hos83, Hos87, Hos89, HM99b, HM99a, HK93, Hov96, Hoy92, Hyl84, IT84, IT88, IJ02, IS10a, IS10b, IKRT89a, IKRT89b, IKRT91, IM95, Inf34a, Inf53a, Inf53b, IP56, IP57, Ish90, II08, IU86, IV85, IV87, IK91, JM99, JT10, Jin91, JP73, Jor59a, Jor59b, Jor62b, Jor62a, Jor66, Jor71, Jun97, KY01, KMW86, KM92, Kam86, KM84, KLMW88, Kap40, Kat00, KRR90, KR92, Kem87, Ker90, Ker83, Kil76, Kim80a, Kim80b, Kis98, Kla90, KK10, Köp06, Kos86, KL90, KL92, Koz90, Kra81b, Kra82, Kra90, Kra91b, Kra91a, Kra06a]. **Dirac** [Kra13, Kra16, Kri87, Kru94, KY93, Kur87b, Kur87a, KW87, L.88, K.L88, LW34, Lam69, Lam70, Lan30, Lan05a, Lan05b, LR79, LRK80, Lan01, LW78, Lan87b, LU31, LR59, Lee95, LH86, Lég95, Leh91, LJ31, Leo80, LCH10, LW75, Lin10, LC98, Löw64, Lub82, Lut07, MD88, Mac98, Mal75c, MHN98, MG87, Mar65, MB90, MB91, Mar88, MS95, yRSBSV99, MSB92, Mat87, MR10, McA90, McC04, MS38, MS87, Med89, Med90, Meh72, Meh87a, Meh87b, Meh87c, MR51, ML93, MRB75, Mil98, Mil97, Mit10, MN97, MKK05, Moh07, Mon95, MB11a, Mor85, Mot87, Moy81a, Moy81b, Moy81c, MS68, Mur71, Nak97, Nak00, NM84, Nas84, Nas86, Nas97, NK93, NM01, NP96, NdlC08, Neu00, Neu33, Nil82, Nil03b, Nis32, Nis35a, Nis35b]. **Dirac** [Nov74, Oak00, Oev88, OS81, Ogu96, Olv86, OP95, Paï90, Pai87, Pai98, Pai00b, PT86, Pas12, PS32a, PS32b, Pau43, PD62, Pei34, Pei35, Pei42, Pei72, Pei85, Pei87a, Pei87b, Pen99, PP71, Pic89, Plo15, Pod97, Pol58, Pol87b, Pol87c, Pol87a, Pon05, Por95, Pos84, PSA94, QGW01, Rad96, RU81, Ran87, RSK99, RA11, RK96, RM95, RM96, Reu99, ROB64, Rho50, Ric03, Rij66, Riv94, Rob66, RRS06, Rod80, RdO07, RdO16, RR93, RL68, Ros83, Rou84, Roz20, Rüd84, RTV99, Rug88, Rum86, RS87, RZ80, Sag91, Sal87a, Sal87b, SM91, SFVW95, SS03, San79, Sch69, Sch38, Sch31a, Sch31b, Sch41, Sch52, Sch94c, Sch94b, Sei36, Sei99, Sel94, SCSB93, Sem93, SBZ90, Sha87, SMI83,

SV89b, SV89a, SC91, SC92b]. **Dirac** [SC92a, SV93, SS98, SS11, SG11, Sim02, Sky71, Smo93, Smo87, Sno73, SM35, Som36, Son99, SM03, Sri83, Sri89, Sta12, Sta67, Sta87, SES81, SES82, SOS84, Str71, SWO76, Szm98, Szm01, Tak79, Tal04, Tam03, TVvN34, Tau49, Tay87b, Tel73, Tem35, Ten68, Tha88, Tha92, Tha06, Tjo75, Tol98, TM85, TCC97, Tra92, TKS19, UL31, UK82, UB83, Van72, VIK98, Vil90a, VP90, Vil90b, Vil95, VC02, Vrb94, Vul03, Wal09, Wal76, WP96, WBD70, Web87, WBSB14, Wie29, Wig72a, Wig01, Wig88, Wig87b, Wig96b, Wig96c, Wil03, Wil98, Wil91, WY84, WY85, Won90, Wot91, Wri16, Wüt11a, zXZ06, Yan78b, YYH$^+$01, YG77, YI90, YZ08, YL09, Zas89, Zec96, ZQ90, Zic00, Zor80, dB32b, dB32a, dB33, dB34, dB51, dB52b]. **Dirac** [dB52a, dBDW$^+$84, dG80, de 89, de 91, vEdG85, vSJLEdJG86, vN28, vN40, Dar91, Ram89, Sch88, Sti13, Stu88, Bro91, Dar92]. **Dirac-** [Gar84]. **Dirac-félé** [Neu33]. **Dirac-Gleichung** [EM33b, SM35]. **Dirac-Like** [MRB75, WP96]. **Dirac-spinor** [Eeg80]. **Dirac-Theorie** [Som36]. **Dirac-Type** [RRS06, MD88]. **Dirac.** [Dre90]. **Dirac/Gamow** [Kra91a]. **Diracgleichung** [Sch38]. **Diracs** [CKPT04]. **diracsche** [Pei35]. **Diracschen** [EM33a, Hei34b, Hei34a, HE35, Jor59a, Jor59b, Jor66, Neu33, vN28]. **DiracSolver** [TKS19]. **Dirak** [Koz90, Med89, Med90]. **Diraka** [Bel82]. **directed** [RR93]. **Directions** [DHS78]. **Disciplines** [Len14]. **Discontinuities** [Szm01]. **Discover** [Ser12]. **discoveries** [Bra09]. **Discovery** [CR12, BBC$^+$94, Fal97, GC97, Got11, Kae48, Kox97, MR82a, Rob97]. **Discrete** [Dir72a, All03, BK10]. **discretizations** [CG07]. **Discussion** [Dir28a, Dir34a, HND$^+$62, SBB$^+$62, vN40]. **discussions** [CCJ$^+$34]. **disk** [FSS98]. **dispensability** [Bue05]. **Dispersion** [Sei36, Dir27c]. **Dispose** [Ano34a]. **Dissipative** [All04]. **Dissociation** [Dir24a]. **Distant** [MWF07, SCPA04]. **distinctions** [GG11]. **Distributed** [QGW01]. **distribution** [CK90, CK91, Dir34a, Fuk14]. **distributions** [Bet83, Cra88, RS87, Zor80]. **divergent** [Bel91]. **DNB** [Ano24d]. **Do** [Wil58, Alp73, Ros83, zXZ06]. **documents** [PKKL09]. **Does** [BS67, Dir36a, Dir75b, Dir79e, Dir81a, Gam67a, Kap40, Wes80, MB11b]. **d'onde** [dB52b]. **d'onde-pilote** [dB52b]. **d'ondes** [BI34]. **Doppler** [Dir24b]. **double** [dB52b]. **double-solution** [dB52b]. **d'ouvrages** [Dar91, Dar92]. **Dr.** [Ano30, Dir40]. **dreams** [Haw11]. **Drehelektrons** [vN28]. **driven** [AG03]. **drogi** [Inf33]. **d'une** [Dav98]. **during** [DHS78]. **dynamic** [DSK72]. **dynamical** [Dir48c, Dir49a, PSA94]. **Dynamics** [Dir24c, Dir27b, Dir33a, Dir49b, Dir50b, Dir51a, Dir55e, Dir58b, Dir77b, Son99, Tay87a]. **dyon** [ZQ90]. **Dyson** [Sch94a].

E. [Bel82]. **Early** [Dir82c, LMSV08, Dir73g, Meh87a, Pai72]. **earth** [FG22, Jor66, Jor71, Kra15a, Kra15b]. **École** [Bou01]. **ed** [Hen89, War96]. **Eddington** [Bek86]. **Edge** [YYH$^+$01]. **edition** [Jär64]. **editors** [Tor87]. **eds** [Ble86, Hen89, Sch85]. **Effect** [FK08, Bat00, Bat07, Dat04, Dir25d, Dir27a, Kox97]. **effects** [DFW99, Gar84]. **efficiency** [Dir42a]. **Ehrenhaft** [Dir77c]. **eigenfunction**

[Szm01]. **eigenfunctions** [Cla94]. **Eigenparameter** [BK10]. **eigenvalue** [All04]. **Eigenvalues** [Cla94, AT07, YI90]. **eightieth** [BvdM83, KMPD85]. **einatomigen** [Fer26]. **einem** [Dir60b]. **Einführung** [Deh36, Haa34]. **Einheit** [Sch38]. **Einige** [Jär64, vN28]. **Einstein** [Ano05, Bal85, Bri18, Buc80, HD77, HE82, SH99, BOS96, BBR03, Bok08, Buc80, Cra88, DMH85, Din58, Dir79a, Dir79d, Dir79c, Dir79b, Dir79f, Dir79g, Dir80e, Dir80d, Dir80c, Dir80h, Dir81b, Dir79m, Faz15, Gau93, GMW80, Gru00, HW96, Jin91, Kap40, Kle05, Kos86, KBN83, MR82d, MR82e, PR86, PS32a, PS32b, PS79, RA11, RM95, Rob15, RdO07, RdO16, RTV99, Tol98, Vil90a, Wie29, Wil93b, Wil91, Zic00]. **elastic** [Gar84]. **Elected** [DP86]. **Electric** [Inf53a, Per67, BM70, DH32a]. **Electrically** [SV93]. **Electricity** [Gam67c, Gam67b, Bun52a, Sto94]. **electrodynamic** [Jär64]. **Electrodynamics** [Ano75, HDW75, Sch52, Sch94b, Sch58, Sch03, BI34, Bro77, DFP32, Dir35b, Dir43b, Dir46, Dir47a, Dir50c, Dir52c, Dir55a, Dir57b, Dir60d, Dir65a, Dir68b, Inf53b]. **électrodynamique** [BI34, Dir52c]. **Electromagnetic** [MWF07, SCPA04, BN72, Dir31b, Dir39a, ZQ90, dB32b]. **électromagnétique** [Dir39a, dB32b]. **Electron** [Ano30, Ano34a, Csa92, Dir77h, Dir79h, Dir79i, Dir79j, HL38, Neu33, Roh60, SBK$^+$08, vN28, Bat07, BN72, Bor52, CH02, CKYY07, CDK90, Dir28f, Dir28b, Dir28c, Dir29b, Dir30d, Dir35a, Dir39a, Dir59a, Dir62c, Dir77g, Dir77i, Dir79k, DFW99, Fal97, GC97, Gol05, Hin77, Kim80a, Kim80b, Kox97, Lan30, Lan05a, Maj37, Mil97, Moy81a, Moy81b, Moy81c, Pai72, Pei34, Pen97, Rec97, Rob97, Som34, Sto94, dB32b, dB33, dB34, dB52b, Ano34a, Dir39a, dB32b, dB33, dB52b, Gar84]. **electrona** [Dir59f]. **Electronic** [Inf53a]. **Electrons** [Dir30i, Dir34d, Dir58a, DuM28, Dir25c, Dir25d, Dir28d, Dir28e, Dir30e, Dir30j, Dir34a, Dir38a, Dir48b, Dir51c, Dir52d, Dir54c, Dir59b, Dir59f, Dir65b, Dir91b, Gam33, KD33, Pau25, Seb19, dB52a, Kra81b, dB52a, dB51, dB51]. **Electrophoresis** [CKPT04]. **electroweak** [KM04]. **elektron** [Neu33]. **Elektronengruppen** [Pau25]. **Elektroni** [Dir57a]. **Elektrons** [Lan30, Dir28f, Dir28d, Neu33, Dir28e]. **Elektrony** [Dir59b]. **element** [Rig02, RS87]. **Elementary** [And88, BH83a, Dir86, FW87, Gam67d, BH82, Fer86, Kat00, KP83, PB68]. **elementary-particle** [BH82]. **elementi** [Fer24]. **Elements** [Dir32a, Fer24, Hos87, WY84, ZQ90]. **elettrone** [Maj37]. **Elimination** [Dir26a]. **elliptic** [ABR06]. **elméletében** [Neu33]. **embedded** [EG84]. **EMC2006** [RCC$^+$06]. **Emeritus** [Ano13]. **Emission** [Dir27d]. **Empirical** [Jor62b]. **Empiricism** [Kra91b, Kra91a]. **enclosed** [Dir42b]. **encode** [Bar02]. **end** [Gre05]. **Energies** [EKI94]. **Energy** [Ano30, BBD$^+$46, Csa92, Dir59c, Dir71f, Dir72c, Dir73h, GLR14, IPM73, MWF07, Roh60, SCPA04, Ano08, BtGW95, Csa81, DPI71, DMH85, Dir36a, Dir42a, Dir62b, Dir70a, Dir71d, Dir71e, Kra17, KPW75, KPS$^+$78, NP96, Per80, SWO76, Wig72b, KMPD85]. **energy-momentum** [DMH85]. **Enhanced** [BBSF10, FK07]. **enquiry** [Alp73]. **Enrico** [Mil07]. **Entgegennahme** [Wil36, HSD34a]. **entre** [Bal85, dB32b]. **episodes** [Bra09, Smo87]. **epistemology** [Wri16]. **Epoch**

[Dir90c, Dic59, Dir88a, Dir88b, Dir90d]. **Epokhe** [Dir90c]. **Equation** [Aug95, BCJT16, Dir71f, Dir72c, Dir77h, Dir79h, Dir79i, Dir79j, Eva04, GB13, GG51, GH94, Inf34a, KK10, Löw64, MRB75, Plo15, QGW01, RK96, Sta67, Tiw12, Wüt11a, vN40, AD87, AME14, AKV83, AW17, Ata89, Ati98, BO92, BK76, Beh85, BCK97, BM70, BtGW95, BI34, BC69, BJ03, CG07, sC78, CGKS94, Coh70, CY91, Cri76, Dat04, Dav98, Dir35a, Dir59a, Dir71e, Dir77i, Dir79k, DSP03, EF77, EV97, Esp12, FA01, FM75, FSY00, FZ91, GLMR94, GL92, GF02, GS84, Ham84, Hil92, Hos82, Hos83, Hos87, Hos89, HM99b, HM99a, IJ02, IS10a, IS10b, IV85, IV87, IK91, Jin91, Jun97, KMW86, KM92, KRR90, KR92, Kis98, Köp06, KL90, KL92, Lan05b, Lin10, MB90, MB91, Mar88, MS95, yRSBSV99, MR51, Mil97]. **equation** [Nak00, RSK99, Riv94, RL68, Rüd84, San79, Sch38, Sel94, SCSB93, Sem93, SMI83, SV89b, SV89a, SC91, SC92b, SC92a, Sky71, SM35, Son99, Sri89, SES81, TVvN34, Tha92, Tha06, TCC97, TKS19, UK82, Vil90a, Vil90b, Vil95, Vrb94, Vul03, Wig72a, Wil03, WY84, Won90, Zas89, Zec96, BI34, Dav98]. **Equations** [Bri18, Dir25e, Dir67a, EM33b, Far03, Ker83, LU31, LR59, Sch31a, Sch31b, Sch41, Tau49, UL31, Wie29, BOS96, BK10, BC78, BR97, Caw69, Cha72, CV90, DK89, Das93, Das96, DMH85, Dir36b, Dir36c, Dir69b, Dir70a, Dir71d, Dir77d, EM33a, Fre95, GS79, HD77, Hau72, Jin91, KM84, KBN83, LH86, Lég95, LC98, MD88, Mal75a, Mal75b, Mal75c, MR10, MR82c, Nak97, Pai87, PT86, PS32a, PS32b, PP71, Por95, Rad96, RA11, RdO07, RdO16, SM91, SFVW95, SBZ90, SG11, SES82, SOS84, Szm98, Szm99, Tak79, Tu91, VP90, VC02, Wil91, de 89, PS32a, PS32b]. **equilibrium** [BSW98, Col12, Dir25c]. **Equivalence** [Dir64a, Bro77, JW28, Nas86]. **equivalent** [AW17]. **Era** [Dir77f, Dir87e]. **Erde** [Jor66]. **Erforschung** [Fis10a, Fis12a]. **Ergodic** [Tau61b]. **Erice** [Zic88]. **Erratum** [Gam67c, GT85a, Mal75a, Szm99]. **error** [ABR06, CG07]. **Erwin** [Dir61b, MR87]. **Essays** [Ble86, Sch85, Tor87, BVV84, SH99, dBDW$^+$84]. **Essential** [KY01, Ogu96, LR79, LRK80, Rig02]. **established** [Ano85]. **Estimate** [Dir42a]. **estimates** [ABR06, BtGW95, CG07]. **était** [Ano05, Kle05]. **etc** [Jor59a]. **etc.** [Jor59a]. **éter** [Dir54a]. **Ettore** [RCC$^+$06, ACM10, Esp08, ES10, EAW15, MRB75]. **Euclidean** [FA01, Lég95, Leh91, Ric03, dG80]. **Eugene** [Ble86, Hen89, L.88, Ram89, Sch85, Sch88, Stu88, Tor87, BVV84, Wig96d, dBDW$^+$84]. **Eulogy** [Lan87a]. **Europe** [Rod19]. **European** [Dor82]. **Evaluation** [McA90, WBD70, BBR03, GZDA01, MN97, MKK05, NK93]. **Evaluations** [Moy81a]. **Evans** [Eva04]. **even** [SMI83]. **Evening** [BDH70]. **Evidence** [CT83, Noe73]. **evidential** [Fra04]. **Evolution** [Dir63a, Dir71b]. **Evolutionary** [Dir72b]. **Exact** [CGKS94, FA01, HM99b, HM99a, IV87, Jin91, Por95, ROB64, Rou84, RTV99, Sta67, Vil90a, Vil95, WP96, Won90, BC78, DK89, FM75, KBN83, PR86, SV89a, SV93, VP90, Vil90b, VC02, Wil91]. **examination** [BBSF10]. **example** [Coq85]. **examples** [AT94]. **Excellence** [Dir80e, Dir79f]. **exceptional** [Nas86]. **Exchange** [Csa92, Dir30c]. **Exchange-Energy**

[Csa92]. **Exciting** [Dir77f, Dir87e]. **Exile** [Ano33]. **exist** [Ros83]. **existence** [FSY00]. **Expanding** [Jor71, Kra15a, Kra15b, Sch41]. **Expansion** [BG91, Dir42b, GPS86, Jor66, Rij66, Csa81, Fin00, IM95]. **Expansions** [Din58, BDM81a, GFG01, Szm01]. **expectation** [YS03]. **Experiences** [Ano55, L.88]. **Experiment** [Pei36, Zic84]. **Experimental** [Ano34a, Dic64, DuM28, MBS02]. **experimenter** [Kri87]. **experiments** [KPW75]. **Explicit** [Cor70]. **exponential** [JT10]. **exponentials** [CPV10]. **Expression** [Lam69, Lam70]. **Expressions** [BBR85, Nov74, Wal76, Car92, Cor70]. **Extend** [Ano34a]. **extended** [BG90, Dir64e, IK91, MHN98, Pru73]. **extensible** [Dir62c]. **Extension** [CV90, AT94]. **Extensions** [All03]. **external** [AD87, Dar90, HM99a, Rou84, SV89b, SV89a, SC91, SC92b, SC92a, SV93, ZQ90]. **extra** [Car01, Kha86, KPW86]. **Extraordinary** [Dir90c, Gib19, Dir88a, Dir88b, Dir90d]. **extrapolation** [CY91].

F.R.S [Dir37c]. **F.R.S.** [DP86]. **Faces** [Bri18, RdO07, RdO16]. **factorization** [Cra85]. **Factors** [Din58]. **Fail** [GLR14]. **faite** [Dir48e]. **Fantastic** [WD06]. **Farmelo** [Cas10, Dys10, RS10, Sti13]. **Fast** [IKRT89a, IKRT91]. **Faster** [zXZ06]. **Father** [Dir03a]. **FD** [FR86]. **FDG** [FR86]. **FDH** [FR86]. **fears** [Dir69c]. **feet** [Pol87a]. **fejlödésük** [Dir78a]. **Feldgleichungen** [EM33a]. **feldtheoretische** [Lan30]. **félé** [Neu33]. **Fermi** [CT67a, Csa81, Csa92, DuM28, GG51, MHN98, Rij66, Tu91, YG77, BDM81a, BDM81b, BDM84, Bel82, Bel94, BBR03, BG91, CT67b, Cra88, Din58, Doa91, Faz15, Fer86, FA10, Fuk14, FR86, GFG01, Gau93, Goa95, GZDA01, Kap40, Kos86, Löw64, Mac98, MS38, MR51, Mil07, MN97, MKK05, Moh07, NK93, NM01, Pei72, Pic89, Rho50, Sag91, SS11, Tu91, WBD70]. **fermion** [Fei02, ZQ90]. **Fermions** [FK08, Bel85, Col12, MZF$^+$12]. **Feynman** [And88, Bus10, CY91, Bro05, DR93, FBD05, II08, KY93, Sch94a, Wüt11a, Wüt11b]. **fidelity** [AME14]. **Field** [Dir50a, Dir55d, Dir83b, Dun12, Har28, Inf53a, Ish90, KK10, KP83, Pau43, Sch69, Sch91a, Suc67, AD87, BN72, Bor85, CDK90, Dar90, Dir31b, Dir39a, Dir51a, Dir55b, Dir55e, Dir59c, Dir62a, Dir62b, Dir62e, Dir64d, Dir64e, Dir66b, Dir68d, Dir87d, Ehb22, Ehb23, EM33a, Gre77, HD77, Inf61, IU86, Jos72, Kur87a, LMV91, Lan30, Lan05a, Mal75a, Mal75b, MS87, Oev88, Ogu96, Olv86, RU81, Ran87, Rou84, Sal87a, Sal87b, Tam03, TCC97, YI90, ZQ90, dG80]. **field-theoretical** [Lan30]. **Fields** [BSW88, Fab22, SBB$^+$62, AW95, AFG75, BCK97, Can98, Car92, Car94, CH02, Dir25a, Dir49a, Dir62d, Hau72, HM99a, Ker90, LW78, Leh91, PR86, Reu99, SM91, SV89b, SV89a, SC91, SC92b, SC92a, SV93, Vil95, Yan78b]. **fifth** [Dor82]. **Fifty** [Kae48, RZ80]. **Fig** [Wil36]. **find** [Lub82]. **Finding** [CMO00, Car01]. **Findings** [Ano30]. **Fine** [BS67, Bek86, FK07, MWF07, SCPA04, WFC$^+$99, AG03, BBSF10, Car01, CKYY07, Han99, MG87, Sta12]. **Fine-Structure** [BS67, Bek86, FK07, MWF07, SCPA04, BBSF10, Car01]. **'Fine-Tuning** [Sta12]. **Finite** [QGW01, Dir62e, Sal87a, Sal87b, SWO76].

First [Ano33, Dat95, Ell91, GMW80, SDEW90, Stu18]. **First-Row** [Dat95]. **Fisica** [RCC+06, Wei77]. **Five** [Sch31b]. **Fixation** [Dir59d]. **fixed** [BB85]. **Fizika** [Med90, Koz90]. **fizikai** [Dir78a]. **fizike** [BDH70]. **fiziki** [Dir83d]. **Florida** [BB03, CMO00, Hal78, KPS+78, Per80, CH16, KP83, Lan87b, Oak00]. **flow** [Bun52a]. **fluid** [IV85]. **Flux** [DP03, Lub82]. **Flux-across-surfaces** [DP03]. **Fock** [Ish90, Dat95, DN96, VIK98]. **Fock-CI** [DN96]. **Fois** [Ano05, Kle05]. **Foldy** [Hos89]. **Folgerungen** [Jor66, HE35]. **Following** [UL31, Dir28a, Jär64]. **fonction** [Sch72]. **Forbidden** [GPS86]. **Forces** [Ell91, Dir73c, Dir73d, SDEW90, SHD91, Zic88]. **Form** [BBR85, Dir51a, Dir58d, Olv86]. **Formalism** [GG02, Rob66, Suc67, Ant69a, Ant69b, Kam86, Pru73, Wot91, vEdG85, vSJLEdJG86]. **Formation** [Jor49, MS87]. **former** [Phi87]. **Forms** [Dir49b, LC98, Tha88]. **formula** [Doa91, Mor85]. **formulas** [Wig01]. **Formulation** [Fab22, GG02, Mar65, MR82b, Dir55a, GH75, RM96, Szm98, Szm99, Tjo75]. **fortalt** [BR64, RRK+64]. **Fossil** [Mau76]. **Foundation** [Jos72, Mat87, MR82d, MR82e]. **Foundations** [Dir64b, Dir66a, GL23, Dir78d, Med89]. **Four** [Ano75, HDW75, DW09, IU86, Lég95, Zas89, Sch31a]. **four-dimensional** [IU86, Lég95]. **Fourier** [CK90, CK91, Lig87]. **Fourth** [Jär64]. **fractionating** [Dir42c]. **Fragments** [Kra19]. **frames** [UK82]. **Framework** [Dun12]. **France** [Ano33]. **free** [BT90, Dir25d]. **French** [Bal85, BI34, Bor49, Bou01, CCJ+34, CT12, Dav98, Dir31a, Dir34c, Dir39a, Dir49c, Dir52c, Kle05, PS32a, PS32b, Sch72, dB32b, dB32a, dB33, dB34, dB51, dB52b, dB52a]. **frequencies** [Rob85]. **frequency** [Dir24b]. **Friedmann** [Sri83]. **friends** [BR64, RRK+64, Roz67]. **frontier** [BBC+94, Pet85, Pet88]. **frontiers** [KPS+78]. **FRS** [Dal87b]. **fuerzas** [SHD91]. **Function** [AT99, JP73, Lam69, Lam70, Rij66, BMP14, Car92, Deb13, Hos83, Hos87, Hyl84, IM95, JT10, Lut07, Rod80, Sch72, SS11, WY85]. **Functional** [Nil03b, All03, Csa81, SS11]. **Functionals** [Csa92]. **Functions** [Din58, Mac98, MS38, Nov74, ROB64, Rho50, Tau61b, Wal76, AW95, BDM81a, BDM81b, BDM84, Bel91, Dir55c, Fer86, GZDA01, GGS04, IP56, IP57, Kos86, Lig87, LW75, Mal75c, RS87, SWO76, ZQ90]. **Fundamental** [Dir25e, Dir67a, Dir71c, Dir73b, Dir77d, Edd46, Ell91, ES10, IPM73, Kur73, Mar84, Per67, SV95, WBR76, Alp73, CGK72, DPI71, DSW08, Dir84c, Dir84e, DOV02, Dys72, DFW99, IC04, Kha86, KPW86, LMSV08, Lee95, MR82c, Nil03a, Nor86, Pet85, Pet88, SDEW90, SHD91, SV90, Uza03, Dir78a, Str71]. **fundamentales** [SHD91]. **Furry** [Ano34a]. **Further** [Sta67, IP57]. **fusion** [Rei72a, Rei72b]. **Future** [Dir84b, Peg77, Pet11].

G [Dar91, L.88, Stu88]. **Gables** [DPI71, IPM73, Kur73, KPS+78, KP83, Per80, Kur87b]. **galaxies** [Hoy87]. **Galileo** [Buc80]. **Gallery** [Pai00a]. **Games** [Tau63c]. **Gamma** [Din58, IKRT89a, Lee95, Pod97]. **Gamma-Matrices** [IKRT89a]. **Gamow**

[Alp73, GG76, Har01, Kra91b, Kra91a, Rei72a, Rei72b]. **gaps** [NP96]. **Gas** [DuM28, Fer26]. **Gases** [Fer26]. **Gauge** [BSW88, Dir55a, GB90, Zic84, ZDF+84, Ara93, BV85, Dir50c, FG87, Kam86, Pon05, RM96, Yan78b, Dir52c]. **Gauge-invariant** [Dir55a]. **Gaussian** [QGW01, Sag91]. **geb** [Deh36]. **gegenwärtigen** [Jor59b]. **geh** [Ben34]. **gehaltenen** [HSD34a, Wil36]. **Gell** [MHN98]. **Gell-Mann** [MHN98]. **Genauigkeit** [Neu33]. **General** [Ano62, Das93, Dor82, GL92, Hov96, Inf34a, Kil76, NM84, Ruf82, Sch31a, Sch31b, CV90, Fuk14, LC98, SMI83, UB83, Ant69a, Dir43a, Dir75g, Dir96, Tra92, Wil93b]. **générales** [Dir53c]. **generalised** [Lig87, NK93]. **Generalization** [Yan78b, BCK97, UK82]. **Generalized** [AT99, Dir50b, Dir58b, FR86, GZDA01, Lan01, BBR03, DW09, Fei02, Gau93, NM01, Pic89, Riv94, Sag91]. **generates** [Nas97]. **Generation** [Hür22]. **generators** [Nas84]. **Genesis** [Wüt11b, Kra81b]. **Genius** [Bri95a, Dys10, Pai00a, Far16]. **geodesic** [KM84]. **geology** [FG22]. **Geometric** [KR92, Ham84, Kru94, Ran87]. **Geometrical** [Ano00, Jun97, Dir74e]. **Geometry** [Tau62, Ati98]. **Geophysical** [Jor62a, SV90]. **Geophysics** [Jor59a, Kra15a, Kra16, Goe16]. **Geophysik** [Jor59a]. **George** [Alp73, Dys93, GG76, Har01, Rei72a, Rei72b]. **Georges** [Dir68e, Dir72e]. **German** [Bos24, Dir27e, Dir28f, Dir28d, Dir28e, Dir30b, Dir53a, Dir60b, Dir60a, Dir77a, Dir80b, Dir84e, Dir87b, EM33b, EM33a, Far16, Fer26, Fis10a, Fis12a, Haa34, Hei34b, Hei34a, HSD34a, HE35, Jär64, JW28, Jor37, Jor52, Jor55, Jor59a, Jor59b, Jor66, Lan30, Neu33, Pau25, Pei35, Sch38, Sei36, Smo93, Som34, SM35, Som36, Tak31, vN28, vW02]. **Germany** [Wat91]. **Gesetz** [Bos24]. **Get** [Ano33]. **Gets** [Ano33, Ano34b]. **Gleichung** [EM33b, SM35]. **Gleichungen** [EM33a]. **Global** [BF12, KM12, KK10, FSS98]. **God** [MB11b]. **Goes** [Ano33]. **Gold** [Dir52a]. **golden** [Meh72, Meh87b]. **Gordon** [GS79, CV02, SBZ90, VC02, de 89]. **Goudsmit** [Lak96]. **GPS** [Ano12]. **gradient** [Csa81, Dir24a, PSA94]. **gradient-holonomic** [PSA94]. **gradients** [MHN98]. **Graduate** [Suc67, Bus10]. **Graham** [Dys10, Cas10, RS10, Sti13]. **grand** [DNRV03]. **Grant** [Ano33]. **graphs** [BT90]. **Graßmann** [Pet11, Hor11, PKKL09]. **Grassmannian** [Rum86]. **Gravitation** [BD61, Dic59, Dir78g, Dir79d, Dir05b, Jor71, ZdSS91, Dir58d, Dir59d, Dir79f, Dir79m, Jor62b, LT62, SS98, Dir79g, Dir80e]. **Gravitational** [Dir72f, Dir75b, Dir79e, Dir83c, JRF06, Mal75b, Rob83, Sch91a, SBB+62, VKA21, Wil93a, WW86, Cho81, Dir59c, Dir62b, Dir62d, Dir62e, Dir64e, Dir68d, Dir78c, Hal78, Inf61, Jor66, Lev80, Ros83, Sch99, Web87, Dir60b, Dir60a, Dir87b, Mal75a]. **Gravitationshypothese** [Jor66]. **Gravitationswellen** [Dir60b, Dir60a, Dir87b]. **Gravitatsiya** [Dir05b]. **Gravitochemical** [JRF06]. **Gravity** [BSW88, Gam67a, Gam67c, Gam67b, Goe16, Kra15b, Wes80, BP95, Bel85, Can98, Kra15a, Kra16, SS72, Jor52, Jor55]. **gravomagnetic** [LBNZ98]. **Great** [Far03, Hen89, L.88, Ram89, Sch88, Stu88, Wüt11a, Kae48, KW87, Pic08, vW02]. **Greatest** [Gun15, Hür22, Gab13, Wal09]. **Green** [Dys93, Hos83, Hos87, Hyl84, IM95, WY85]. **Grenzen** [Neu33]. **Grosse**

[vW02]. **Grossmann** [Ruf82]. **Group** [DSP03, Far01, Tau61b, Wig39, WY84, Dir45c, Dir63b, Dir72a, KM84, Lég95, Mal75c, NdlC08, RL68, RRK$^+$64, Ten68, Wig89]. **Groups** [Wey31b, Wey50, Pau25]. **Grund** [Deh36, Haa34]. **Grundlagen** [Jor52, Jor55]. **Gruppentheorie** [Wey31a]. **GTO** [Dat95]. **Guide** [Rod19]. **Guy** [Lan87a].

H [Dar96, Dir61a, Hov96, War96]. **H.** [Dir52a, Dir64a]. **Haas** [Deh36]. **Half** [Ano18]. **Half-light** [Ano18]. **Half-matter** [Ano18]. **halos** [Hoy87]. **Hamilton** [AW17, Caw69, PP71]. **Hamiltonian** [CY91, Dir50b, Dir51a, Dir58b, Dir58d, Dir59d, Dir64c, DEŠ92, EKI94, JM99, Oev88, Ogu96, Olv86, Rou84, Sei99, TM85, YZ08]. **Hamiltonians** [NP96]. **hans** [BR64]. **harmonics** [Yan78a]. **Hartree** [Dat95, DN96]. **harvest** [Bra09]. **határai** [Neu33]. **Hawking** [KN03, Pic08]. **HD** [IRV$^+$08]. **Heating** [JRF06]. **Heisenberg** [Ano51, Ben34, Deh36, Haa34, LW34, Lak96, Wil36, Ano33, Ano34a, Ano75, Bok04, BR87, Dir28a, Dir64a, Dir76b, Haa34, HDW75, Nis32, Smo93, vW02]. **Held** [Meh73, CCJ$^+$34, Hal78, Jef87, KPS$^+$78, KP83, Ruf82, Sal69, Zic88]. **Helge** [Bro91, Dar92, Dre90, Sch91b, Goe16, Hen91]. **hemisphere** [DFPP43, PFD43]. **hemispheroid** [DFPP43, PFD43]. **heritage** [Esp08]. **Hermann** [PKKL09]. **Hermite** [Doa91]. **Hess** [Ano51]. **Hestenes** [Ham84]. **Hidden** [Cas10, Dys10, Far09b, RS10, Sti13, Far16, Lee95]. **hidrógeno** [Bun52b]. **Hierarchy** [CV02, DW09, YZ08, YL09]. **Higgs** [AFG75, Tol98, YS03]. **High** [AME14, BtGW95, Fer86, IKRT89b, IPM73, Rij66, DPI71, Dir70a, Dir71d, KPW75, KPS$^+$78, NP96, Per80, KMPD85]. **High-** [BtGW95]. **high-energy** [Dir70a, Dir71d, KPW75, KPS$^+$78, NP96, Per80, KMPD85]. **High-fidelity** [AME14]. **High-precision** [Fer86]. **higher** [Kru94]. **higher-order** [Kru94]. **Hilbert** [Tol98, Dir70c, Dir74g, Dir91a, Pru73]. **Hintertreppe** [Fis10a, Fis12a]. **Hirshfeld** [Tiw12]. **Hirzel** [Ben34, Wil36]. **Historical** [GL23, Deb13, Dir75c, HE82, Kra81a, Kra06b]. **Histories** [Pei97]. **History** [Dir87c, KN03, Kra82, Kra19, UM86, Wei77, BN13, Fra04, Kra15a, KHFA67, Nor65, Nor90, Oak00, Pai72]. **Hold** [Ano18, Dir36a]. **Holders** [Ano24a, Ano24b]. **hole** [FSY00, Pei35]. **Holes** [Mon95]. **holonomic** [PSA94]. **Homogeneous** [Dir33a, Inf53a]. **honor** [KMPD85, LW78, SH99]. **Honoring** [Dys74]. **Honour** [Ble86, Sch85, Tor87, BVV84, Sno73, dBDW$^+$84]. **Hooft** [CK78]. **Hopes** [Dir69c]. **host** [Hal78]. **Hulthén** [IS10a]. **Human** [Bus10, II08, Lip87]. **hundred** [GMW80, Rob15]. **Hungarian** [Dir78a, Neu33]. **hybrid** [MZF$^+$12]. **Hydrodynamics** [Tau63c]. **Hydrogen** [Dir26e, Dir67c, Lak96, Rig02, Bel91, Bun52b, Dat04, DH32a, MR10]. **hydrogen-like** [DH32a]. **Hydrogenic** [Tiw12]. **hyperbolic** [CV90, Köp06]. **Hypergraphs** [RRS06]. **hypersurfaces** [Tra92]. **Hypothese** [Jor59a]. **Hypothesen** [Jor59b]. **hypotheses** [Jor59b]. **Hypothesis** [Bos24, Jor62a,

Jor71, Tel73, Dir25a, Jor62b, Jor66, Dir74b, Dir75d, Dir78c, Dir79g, Jor59a].

Ia [FA10]. **Idea** [Dir79b, Car01]. **ideal** [Fer26]. **idealen** [Fer26]. **Ideas** [Dir78g, Dir69a, Dir73e, MS87, dB52b]. **idées** [dB52b]. **identical** [Fer24, Mil07]. **identici** [Fer24]. **Identities** [Nas84, Kat00]. **idöbeni** [Dir78a]. **ignited** [Gre05]. **ihre** [Lan30, Som36]. **II** [Wig96d, Ant69b, Dir28c, Dir52d, Dir72c, Dir88a, Dir03b, Hos83, Kim80b, Kox97, Lam70, LRK80, MB90, Nis35b, PS32b, PFD43, PSA94, Tau61b]. **III** [BMP14, Din58, Dir54c, Dir88a, Dir04, MB91, Tau63a]. **Illuminating** [Bat07, HW06]. **illus** [Dre90]. **im** [Jär64, Pau25, Pei35]. **imaginäre** [Sch38]. **imaginary** [Sch38]. **implementability** [FG87]. **implementation** [IKRT91]. **implications** [Mil97]. **Important** [Ano30]. **Improved** [SBK+08]. **impulses** [Nil03b]. **IMT** [MKK05]. **inadequacies** [Dir87d]. **inception** [Ehb22, Ehb23]. **including** [Ano65, IS10a, Sno73]. **Inclusion** [RM96]. **inclusive** [Ano10]. **Incomplete** [Goa95, Pon05]. **increased** [Car01]. **Indefinite** [Hei72]. **independent** [Dic59]. **Infeld** [Dir52b, Dir60d]. **Infinite** [NdlC08, Dir34a]. **Infinite-dimensional** [NdlC08]. **Infinitesimal** [Ker83]. **Influence** [Dir76b, Dir80d, Kur87a]. **informal** [CH16]. **Information** [Plo15, DSK72, RS10]. **Inhomogeneous** [Wig39, Wig89]. **initial** [CG07, Ehb22, Ehb23]. **Innocence** [Stu18]. **Inquiry** [Gib19]. **institut** [CCJ+34]. **Institute** [Ano34b, CCJ+34, F+00]. **Instruments** [L.88]. **Insulator** [FK08]. **integrability** [SOS84]. **integrable** [PSA94, YZ08, YL09]. **Integral** [Goa95, JP73, MD88, Rho50, Fuk14, IT84, KY93, Lin10, MN97, MKK05, Moh07, NM01, OS81, Rum86, SS72]. **Integrals** [BBR85, BG91, CT67b, Din58, ROB64, BBR03, CT67a, Dir25b, Doa91, FH65, FHS10, FR86, GFG01, Gau93, NK93, Pic89, Sag91, SWO76, Tal04, WBD70]. **Integration** [BOS96, Csa92, BO92, Sei99]. **Integrator** [BCJT16]. **Interacting** [Dir62d, Bel85, Rou84]. **Interaction** [KK10, BSW98, DEŠ89, DEŠ92]. **Interactions** [Kur73, BK76, BJ03, CV90, DPI71, Dir86, IPM73, LC98, Web87, Zic84]. **interdisciplinary** [F+00]. **Interest** [L.88, K.L88]. **interfaces** [dG97]. **internal** [MB90]. **International** [BCEP94, Meh73, Ruf82, Sal69, Wat91, Zic88, Ano10, Car01, CCJ+34, RCC+06]. **Interpretación** [Bun52b]. **Interpretation** [Dir27b, Pei36, Dir30d, Dir42e, Dir68b, Lan30, Lan05a, Pol87c, Ran87, vEdG85, Bun52b]. **intertwining** [Wil98]. **Interview** [Ano94, BP79a]. **intrinsèque** [Bou01]. **Intrinsic** [RL68, Bou01]. **intrinsic-particle** [Bou01]. **Introduction** [Csa81, Haa34, dB52b, vSJLEdJG86]. **Invariance** [BF12, DPP97, KM12, Rob85, WB78, ZDF+84, Cra93, Dir25b, DPP42, FA01, MSB92]. **Invariant** [Lég95, Dir55a, Hos82, Hos83]. **inventory** [KHFA67]. **Inverse** [Cor70, HJKS91, Jun97, Leo80]. **inversion** [Cra85]. **Investigation** [Dir26e, Dir67c]. **investigations** [CH16]. **Invited** [DPI71]. **involutional** [Kim80a, Kim80b]. **Ions** [VIK98]. **ISBN** [Ble86, Hen89, Hen91, Ryc17, Sch85, War96]. **isometry** [KM84]. **isotopes**

[Dir41]. **Israel** [UM86]. **ISSAC** [Wat91]. **Italian** [Fer24, Maj37]. **Italy** [Dys74, Meh73, RCC+06, Zic88]. **iterative** [Ata89]. **IV** [Dir05b, Far01, Tau62]. **Ivancevic** [Bus10, Bus10].

J [Dar91, Fal97, L.88, Sch85, Szm99, Fal97]. **J.** [Dir71a]. **J.-P** [Sch85]. **Jacobi** [AW17, PP71]. **Jagdish** [Dys74]. **James** [Ryc17, Dir75e]. **Jan** [KPS+78, Per80]. **January** [DPI71, IPM73, Kur73, KP83]. **jauge** [Dir52c]. **Jean** [Ble86, Tor87]. **Jean-Pierre** [Ble86, Tor87]. **jepohe** [Dir90d]. **Jerusalem** [HE82]. **John** [Dir37c, F+00, Jef87, Stu88, Réd05, Tau61a, Tau61b, Tau63a, Tau62, Tau63b, Tau63c, vN96]. **Johnson** [DJ95]. **joint** [F+00]. **Jones** [L.88]. **Jordan** [Kra15b, Sch99]. **Journey** [FR13]. **journeys** [WD06]. **juin** [LT62]. **Jülich** [F+00]. **July** [Ruf82, Wat91]. **June** [Pei92, Sal69].

Kähler [PT86, Reu99]. **Kahn** [Kos86]. **Kalinga** [Aur71]. **Kálnay** [Hin77]. **Kaluza** [GT85a, GT85b, GT86, Mar84]. **Kapitza** [Bat00, Bat07, DRFS80]. **Kargon** [L.88]. **kart** [Wil36]. **Kasner** [Sri89]. **Kelvin** [L.88]. **Kepler** [Cor86, DJ95, IU86, YI90]. **kernel** [MD88, Rod80]. **Kerr** [EF77, KM92]. **Ket** [Rob66, D'A02, Pru73]. **kets** [Jau72]. **Key** [Ano18]. **Killing** [BCK97]. **Kilmister** [Hen89]. **Kinetic** [Ano30, Csa92]. **Kinetic-Energy** [Csa92]. **Kinks** [Sky71, Leo80]. **Klein** [CV02, GS79, GT85a, GT85b, GT86, Mar84, SBZ90, Som36, VC02, de 89]. **Klein'schen** [Som36]. **kleinsten** [Fis10a, Fis12a]. **Knowledge** [Ano34a]. **Komplexstruktur** [Pau25]. **koordináta** [Neu33]. **koordináta-mérés** [Neu33]. **Koordinatenmessungs** [Neu33]. **Koordinatenmessungs-Genauigkeit** [Neu33]. **Kosmologie** [Jor52, Jor55]. **kosmologischen** [Jor59b]. **Kosmologiya** [Dir05b]. **Kostant** [Pen99]. **Kragh** [Dre90, Goe16, Hen91, Bro91, Dar92, Sch91b]. **kreds** [BR64, RRK+64]. **Kursunoglu** [Hen89, L.88, Ram89, Sch88, Stu88]. **Kvantovaya** [Dir02, Dir03b, Dir04]. **kvantovoi** [Dir60c, Dir90b]. **kvantovoj** [Dir68a, Dir99, Med89]. **Kvantovoĭ** [Dir32a]. **kwanty** [Inf33].

Laboratory [SBK+08, Dic59]. **Lagrangian** [Dir33b, Dir05a, OP95]. **Lagrangians** [RM95]. **Laguerre** [MR10]. **Lanczos** [BCEP94, GH94]. **language** [Ehb22, Ehb23]. **Large** [Alp73, Ata89, Dir74b, Dir75d, Dir78c, Dir79g]. **Large-** [Ata89]. **last** [Alp73, Rec97]. **later** [Esp08]. **Lattice** [HJL00, MKS+13, F+00]. **laureate** [Ano65]. **Law** [Bor49, Bos24, Ano34a]. **Laws** [And88, Irv83, Bou85, D'A02, FW87, GS79, Pic08, Rob85]. **Lax** [PSA94]. **lead** [Rob85]. **Leap** [Bus10, Fis10a, Fis12a, II08]. **Leben** [Far16]. **lecture** [Dir60b, HSD34a, Pei92]. **Lectures** [Dir35b, Dir55b, Dir64d, Dir64f, Dir66b, Dir67f, Dir01, Dir02, Dir05b, IPM73, L.88, Nis32, Nis35a, Nis35b, Sch69, Suc67, Ano65, BDH70, DPI71, DHS78, FW87, Dir68a, Dir99, Ell91, SDEW90, dG97, And88]. **led** [Bel82]. **Lee**

[WP96]. **Legacy** [Goe16, RCC+06, Kra16, McC04]. **Leipzig** [Ben34, Deh36, Wil36]. **Lekcii** [Dir68a, BDH70]. **Lektsii** [Dir99, Dir02, Dir05b]. **L'électron** [Som34, dB34]. **Lemaître** [Dir68e, Dir72e]. **lengths** [ES10]. **lensing** [LBNZ98]. **Leopold** [Dir52b]. **Let** [Kra17]. **Letter** [Aur71]. **letters** [Réd05]. **Level** [Bus10, Tiw12]. **Levinson** [Kla90]. **Library** [CMO00]. **Lichtgeschwindigkeit** [Pei35, Tak31]. **Lichtquantenhypothese** [Bos24]. **Lie** [DW09, FZ91, ML93, Pen99, UB83]. **Life** [Cas10, Dys10, Far09b, Gun15, RS10, Sti13, BDH+89, BR64, Dal87b, Dir83a, Far16, Gre05, Kem87, Pai98, RRK+64, Roz67, BDH70]. **Life-Changing** [Gun15]. **lifts** [Oev88]. **Light** [Bos24, CR12, Fin00, Irv83, Lee23, Ano18, Dav98, KD33, Kra06b, Lee21, Lou83, Pei35, Tak31]. **Light-cone** [Fin00]. **Light-Quantum** [Bos24]. **Like** [MRB75, DH32a, IS10a, IS10b, LC98, WP96]. **Limit** [BCJT16, CP68, MWF07, Sch06, SCPA04, All03]. **Limitations** [Ano34a]. **Limits** [FA10, MWF07, Neu33, SCPA04, WBR76, Rob85]. **line** [Gre77, HJKS91]. **linear** [GS84]. **Lines** [MWF07, SBK+08, SCPA04]. **Lippmann** [DJ95]. **List** [Meh87c]. **Literaturberichte** [Som34]. **Literature** [Som34]. **Little** [Dir80f]. **liv** [BR64, RRK+64]. **livre** [Ano05]. **Lobachevskian** [Ker90]. **Local** [BF12, Hes73, KM12, SV95, Cra93, FGM+96, IV85, IV87, IK91, Jin91, MB90, dG80]. **localizable** [Dir48c]. **Localized** [Rad96]. **Löchertheorie** [Pei35]. **Lodge** [Ano30]. **Logic** [Dir54b, Tau61a]. **logical** [Med89]. **logicheskie** [Med89]. **London** [Aur71]. **Long** [Dir73c, Dir73d]. **Lorentz** [sC78, Coh70, DPP42, Dir45a, Dir45c, Dir53b, DPP97, Eeg80, GLMR94, GPS86, Rob85, RL68, San79, Son99, Ten68, Wig39, Wig89]. **Lorentz-transformations** [Eeg80]. **Lorentzian** [IK91]. **loss** [SWO76]. **Lost** [Aug95]. **Lösung** [SM35]. **Louis** [Ble86, Bou01, Sch85, Tor87, BVV84, Dav98, dBDW+84]. **Love** [Gun15]. **Low** [Ano08, MWF07, SCPA04, BtGW95]. **low-energy** [BtGW95]. **Lucasian** [Ano24c, KN03]. **lumière** [Dav98]. **luminaries** [Bri95a]. **Lyman** [SBK+08].

M [Ano85, Ano10, Anoxx, Ben34, Bro06, BP79a, Cha73, CH16, CMO00, Dal87b, Dal95, Dar96, Dav36, Deb13, Dir37c, Dir40, Dir80a, Dys87, Eli87, Eps35, Ett31, Fis10b, Fis12b, Got11, Hal78, Hei30a, Hei30b, HK93, Hov96, Jär64, Kil76, Kri87, KMPD85, LW78, Lan87a, LJ31, MS87, Med90, Meh72, Meh87b, Meh87c, Oak00, Pau30, Pol58, Sch69, Sch94b, Smo84, Suc67, Tem35, War96, Wil36, Wri16, Wil36]. **Mach** [BP95, BD61, Dic61, Dir61a, HND+62, PD62]. **Machian** [Son99]. **MACSYMA** [TM85]. **made** [Haw11, Sch94a]. **magic** [Wil03]. **Magnetic** [CT83, Dir48a, Dir77e, For63, God87, Hoy87, Inf53a, Kol67, MC70, MKS+13, Pic81, Sch06, Ama68, AC72, BK76, BB85, Beh85, BM70, BG90, CK78, CH02, Cor86, Dir25a, Dir48d, Dir76c, Dir84d, Gre77, Hau72, LMV91, Lub75, MG87, Ogu96, Ros83, Rou84, Som34, TCC97, Vil95, YI90, dB33, dB34, Dir74f]. **magnétique** [dB33, dB34, Som34]. **Magnitnii** [Dir74f]. **Main** [Ano34a].

Majorana [RCC+06, Ano08, ACM10, Esp08, ES10, Esp12, EAW15, Fio06, FK08, Gar84, GG11, MRB75, MZF+12, zXZ06]. **Majorana-neutrino-mass** [Gar84]. **make** [Dir81a]. **makers** [CM86]. **making** [Bel99]. **Man** [Cas10, Dys10, Far09b, Kib98, RS10, Sti13, Far09a, Far16, God98]. **manifold** [MB90, MB91, Mar88]. **manifolds** [GNH78]. **Mann** [MHN98]. **Many** [Bri18, Kat00, Dir29b, Dir30d, DFW99, RdO07, RdO16]. **many-electron** [Dir30d, DFW99]. **Many-particle** [Kat00]. **MAPLE** [Vul03]. **Marcel** [Ruf82]. **Mass** [HN71, IRV+08, SBK+08, Car94, CKYY07, Gar84, IS10b, KY01, KBN83]. **masses** [Mal75b, Mal75a]. **massive** [AW17, Dar90, KL92, PR86]. **massless** [Bor85, Nil82]. **matemática** [Bas08]. **materials** [WBSB14]. **Materiewellen** [Deh36, Haa34]. **materja** [Inf33]. **Math** [Szm99]. **Mathematical** [GG02, CH16, Dir78d, EAW15, Mur71, vEdG85, vSJLEdJG86, Mar65]. **mathematically** [Bel91]. **Mathematics** [Dir82e, Ano24c, Bue05, Dir39c, Dir82a, Dir85, FF91, Pen97, KN03]. **Mathisson** [Dir40]. **Matrices** [Goo55, IKRT89a, Lee95, Mor85, Pod97]. **Matrix** [KMW86, MR82b, Dir30d, Hos87, IKRT91, NM84, Szm98, Szm99, Wig01, WY84, ZQ90]. **Matter** [Ano30, HND+62, Plo15, Ano18, Bat07, Dir77b, DRF17, Inf33, Inf34b, Haa34]. **matters** [Rei72a, Rei72b]. **Maurice** [Ano52, Ano83a, Ano83b, DP86, Hal85, Hen89, KW87, Pei85, Ram89, Sch88, Stu88, Wig88, Dir74d, Kra06a]. **Max** [Fis10a, Fis12a, Ano52, Fis10a, Fis12a, Gre05]. **Max-Planck-Medaille** [Ano52]. **maximum** [LR79, LRK80]. **Maxwell** [Bri18, BCK97, BR97, Can98, Cha72, DK89, Das93, Das96, Faz15, GS79, HD77, KBN83, LU31, LCH10, PR86, Rad96, RA11, RdO07, RdO16, Sch41, SM03]. **May** [Ano18, Car01]. **Mayer** [PS32a, PS32b]. **McDougall** [Fuk14]. **Me** [Ber09]. **Mean** [KK10, dB32a]. **Meaning** [Jor59a, Smo93, Dir50c, Som36]. **Means** [LR59, Eeg80, Fer86, IKRT89b]. **meant** [Kem87]. **Measure** [LR59, Nak00, Nor65, Nor90, Zas89]. **Measurement** [Neu33, Hal78, Pet85, Pet88]. **measurements** [Rob85]. **measures** [Nak97]. **mecánica** [Dir54a, Dir67b, Dir68c, Dir69e]. **mécanique** [Dir30h, Dir31a]. **mechanical** [Lan30, Lan05a]. **Mechanics** [DL82, Dir25e, Dir26a, Dir26d, Dir26e, Dir30b, Dir30f, Dir32a, Dir35c, Dir47b, Dir54d, Dir55d, Dir58c, Dir59e, Dir67a, Dir67b, Dir67e, Dir67c, Dir68c, Dir69e, Dir81d, Dir03c, Dir05a, Dys07a, Fey48, GG02, GGK02, GL23, Har28, HSD34b, Mar65, MR82b, Nis32, Sei36, Tau61a, Wey31b, Wey50, vdW67, Ant69a, Ant69b, Bok04, CY91, Dir26f, Dir26c, Dir27a, Dir27e, Dir29a, Dir29b, Dir31a, Dir32b, Dir33b, Dir33c, Dir37a, Dir37d, Dir39b, Dir42e, Dir45b, Dir51d, Dir55b, Dir64b, Dir64c, Dir64f, Dir66a, Dir67f, Dir68a, Dir69a, Dir72d, Dir73f, Dir74c, Dir77d, Dir82b, Dir99, Dir01, Dir09, DR93, Fei02, FH65, FHS10, FK70, Got11, Haa34, Jär64, JT10, Mat87, MR82a, MR82c, Meh87a, MR87, MR00, MS68, Pol87c, Tjo75, vEdG85, vdW68, vdW07, Eps35, LJ31, Pol58, Tem35, Hei30a]. **Mechanics** [Dav36, Hei30b, Pau30, Bro06, Dra23, Kra13]. **Mechanics.** [Ett31]. **mechanique** [Dir53c]. **mechnanics** [Dir54a]. **Medaille** [Ano52].

Medal [Ano85, Ano13, Ano24a]. **medarbejdere** [BR64, RRK+64]. **méecanique** [Dir90a]. **Meeting** [CCJ+34, Pei87a, Ruf82, Wig87a, Wig96a, Hal78]. **Mehra** [Dys74]. **mekhanike** [Dir68a, Dir99]. **Mekhaniki** [Dir32a, Dir60c]. **Mem** [Dir61b]. **Memo** [BBD+46]. **Memoirs** [Dir05b]. **Memorial** [And88, Ell91, Pei87a, SDEW90, dG97, Dir71a, FW87, Haw98, Pei92, Rei72a, Rei72b, Wig87a, Wig96a]. **Memories** [Dir88a, Dir88b, Dir90d, Kir97]. **memory** [Ano85]. **men** [Sch94a]. **Mensch** [Far16]. **mérés** [Neu33]. **Merit** [Ano24b]. **Merwe** [Ble86, Sch85, Tor87]. **Mesotron** [Kap40]. **meteorites** [PD62]. **Meteorology** [Tau63c]. **Method** [BCJT16, Pau43, Tau49, BO92, Cra88, Fuk14, GL92, Inf53b, LCH10, NM01, RSK99, SM35]. **Méthodes** [Dir53c]. **Methods** [Dir69d, Dir82d, Dir89, Har28, Dir30a, Dir41, Dir64c, Dir70b, MKK05, RS87]. **Metric** [Lee23, Hei72, HM99b]. **metrics** [IK91, SC92b]. **Metrological** [IC04]. **Miami** [KPS+78, KP83, Sta87]. **microwave** [Han99, YS03]. **Mills** [LH86, RTV99, Tol98, Lan01, MB90]. **Mind** [Hür22, II08, WD06, Sno73, Bus10]. **minds** [Pic08, Wal09]. **Minkowski** [GLMR94, KLMW88, Pod97, RK96]. **Miramare** [Meh73]. **mirror** [HW96]. **Mixed** [Lub75]. **Mode** [DJ95]. **Model** [GD10, Lee23, Mon95, Das96, Dir62c, ERW75, Gab13, KM04, OS81, RM95, WP96, Wot91]. **Modeled** [Csa92]. **Modelers** [Lak96]. **Models** [Dir74b, Dir81c, Lak96, All03, Len14]. **moderation** [LT04]. **Modern** [BBBM90, Far03, Gib19, HSD34b, L.88, Bra09, Inf34b, Nor65, Nor90, ZdSS91, HSD34a]. **moderne** [Ben34, HSD34a, Wil36]. **modification** [IP57]. **Modifications** [MR82b]. **modified** [Bel85, IP56]. **Molecular** [DN96, McW73, QGW01]. **Molecules** [FK07, BBSF10, ERW75, EG84]. **Möller** [Ano67]. **Moment** [Roz20, BK76, BB85, Beh85, Ogu96, Rou84]. **momentum** [Dat04, DMH85, Nak00]. **monatomic** [Fer26]. **monobromide** [BBSF10]. **Monografii** [Dir02]. **monograph** [Bus10]. **Monographs** [Dir02, Sch85]. **monopol** [Dir74f]. **Monopole** [Ble76, Che77, Fer49, HSZ76, Kol67, MC70, Pic81, RZ80, BB85, BG90, CK78, Coq85, Cor86, Dir77e, Dir78e, Fre95, Gre77, IU86, Kra81a, LMV91, Lub75, Lub82, MG87, NdlC08, Oli98, Pos84, TCC97, Vil95, Yan78b, Yan78a, YI90]. **Monopoles** [For63, Hen83, MKS+13, Sch06, CT83, Dir74f, Dir76c, Fre95, God87, Hoy87, LBNZ98, Ros83]. **Moon** [Dir80g]. **moons** [RA11]. **most** [EM33a, Haw11]. **motion** [Dir42c, Dir64e, Dir69b, Dir70a, Dir71d, Dir74a]. **motions** [AW95]. **moving** [Bet83]. **moyennes** [dB32a]. **multicomponent** [YZ08]. **Multiconfigurational** [VIK98]. **Multiplication** [Dir43a, Dir42d, PFD43]. **Multiscale** [BCJT16]. **multivectorial** [KRR90]. **Must** [Ano30, Far03]. **My** [Dir83a, Dir03a, HC87, Dir87a, Kem87]. **Mystery** [Ano30, FR13]. **Mystic** [Cas10, Dys10, Far09b, RS10]. **mystifying** [Lut07].

N [Hen89, L.88, Ram89, Sch88, Stu88]. **Nach** [Dir60b, Sei36]. **näherungsweisen** [SM35]. **Named** [Ano33, BBC+94]. **nanowire** [MZF+12].

Nation [Ano33]. **Natural** [McW73, EM33a, LT04]. **Nature** [Dir63a, Dir87c, Gam68, HN71, Kra19, Wil58, Alp73, Bar02, Dir71b, Dir73a, Dir74e, Meh73, Zic88, Dys74]. **natürlichsten** [EM33a]. **Naturwissenschaft** [Smo93]. **nauchnych** [Koz90]. **Nauchnye** [Dir03b, Dir04, Dir05b]. **Nauchnykh** [Dir02, Dir03b, Dir04, Dir05b]. **nauki** [Inf33]. **Near** [Dat95]. **Negative** [Ano30]. **neobychajnoj** [Dir90d]. **Neobychaĭnoĭ** [Dir90c]. **net** [Sel94]. **Neuberger** [HJL00]. **Neue** [Ben34]. **Neumann** [F$^+$00, Mar65, Réd05, Tau61a, Tau61b, Tau63a, Tau62, Tau63b, Tau63c, Tjo75, vN96]. **Neurons** [Kir97]. **neutral** [BB85, Csa81, Ogu96, SV93]. **Neutrino** [GLR14, Gar84, KM84, PR86, Gar84]. **neutrino-electron** [Gar84]. **Neutrinos** [Fio06, zXZ06, Ano08, CGKS94, CT12, Fra04, HM99a, CT12]. **Neutron** [Dir42d, Dir43a, JRF06, LT04, VKA21, PFD43]. **Newman** [EF77, KM92]. **Newton** [BP95, KN03, LBNZ98, WW86]. **Niels** [BR64, Dir64g, Dir67d, Kra17, RRK$^+$64, Roz67]. **No** [EKI94]. **No-Pair** [EKI94]. **Nobel** [HSD34a, Ano33, Ano34b, Ano65, Ano24d, Bri95a, DS83, Gre05, HSD34b, LW34, Pau45]. **Nobelpreis** [Ano51]. **Nobelpreises** [HSD34a, Wil36]. **Nodes** [Dir26a]. **Non** [Fey48, FSY00, Har28, Dir42a, Dir42d, Dir55c, FZ91, MB90, MB91, Mar88]. **Non-Coulomb** [Har28]. **Non-existence** [FSY00]. **non-Lie** [FZ91]. **non-orthogonal** [Dir55c]. **Non-Relativistic** [Fey48]. **non-Riemannian** [MB90, MB91, Mar88]. **non-scattering** [Dir42a]. **non-uniform** [Dir42d]. **noncompact** [BT90]. **noncovariant** [CY91]. **nondiagonal** [SC92b]. **Nondispersive** [Hil92, SBZ90]. **nonexistence** [Zas89]. **nonextensive** [JT10]. **nonextensive-statistical-mechanics** [JT10]. **nonfactorizable** [HM99b]. **Nonlinear** [Bou08, Ker83, KK10, AKV83, FZ91, PSA94, RU81, SES82, SOS84, Tak79]. **Nonrelativistic** [BCJT16]. **nonstandard** [LW75, Nak97]. **Nonunitary** [yRSBSV99]. **Nordström** [FSY00]. **norm** [Tam03]. **Normal** [DJ95, Tha88]. **Normal-Mode** [DJ95]. **North** [BCEP94]. **Notation** [Ano67, Dir39b]. **Note** [Dir24b, Dir24c, Dir30c, Dir30d, Dir55c, Wal76, Tjo75]. **Notes** [AG13, Pei42, RS10, Bel82]. **nothing** [Wea16, Ryc17]. **novel** [SBZ90]. **November** [Hal78, Lan87a]. **Nowe** [Inf33]. **noyaux** [CCJ$^+$34, Sch72]. **Nuclear** [Irv83, Mau76, Mla98, Stu18, Wig96d, AG13, Kae48, RC13]. **Nuclei** [CR12, CCJ$^+$34, Sch72]. **nucleosynthesis** [Kha86, KPW86, YS03]. **Nucleus** [FR13]. **null** [KM84]. **number** [DOV02]. **Numbers** [Alp73, Dir74b, Dir75d, Dir78c, Dir79g, Bar02, D'A02, Hes75, PP71]. **Numerical** [Csa92, HJL00, Pic89, Sei99, Tau63b, AME14, AKV83, LCH10, NK93, SM91, SFVW95, SG11, F$^+$00]. **Numerology** [Gam68]. **NUT** [CV02, LBNZ98].

O [Ble86, Sch85, Tor87, Bel82, Dir90c, Dir90d]. **Obey** [Kap40]. **Obituary** [Bin00, DP86, Dir40, Dir61b, Dir75e, Pei85]. **Objects** [Gam67d]. **oblate** [DFPP43, PFD43]. **Observables** [Hes75, Cor07, Hes73]. **observational** [Uza03]. **Observations** [VKA21, FA10]. **observed** [Dic59]. **Obtain**

[Ano34a]. **October** [CCJ+34, DP86, Far01, RCC+06]. **octobre** [CCJ+34]. **octonions** [Köp06, MB91]. **odd** [Paĭ90]. **odyssey** [SG11]. **off** [Wig01]. **off-diagonal** [Wig01]. **Oklo** [LT04]. **Old** [Dic59, PB68, Zic88, Zic88]. **Oliver** [Ano30]. **OM** [Dal87b]. **Omega** [Bar02]. **onde** [dB32b]. **One** [Gib19, Gun15, Kir97, NP96, Wal09, AKV83, Dar90]. **One-dimensional** [NP96, AKV83]. **ongoing** [Das96]. **ontology** [Wri16]. **Open** [Bok04, KL92, VC02]. **Operator** [DJ95, HJL00, Hin77, Neu00, Szm98, Szm99, Ara93, BT90, Cla94, Dir37d, FG87, FSS98, Fei02, HW90, KMW86, KLMW88, Lan01, Mil98, Pen99, Pod97, Tam03, Tha88, Tol98, Tra92, de 89]. **Operators** [GZM05, Tau63a, All03, BILP03, CV02, DEŠ89, FGM+96, Hes75, KY01, KM84, KLMW88, Kla90, LR79, LRK80, Olv86, Wil98, WY84, Zor80, de 91, Tau61b]. **Oppenheimer** [Ano34a, Dir71a]. **Optical** [CR12]. **optics** [Bat07]. **Orbis** [Per80, KPS+78, KP83]. **Orbit** [Löw64]. **orbitals** [Tal04]. **Orbiting** [RA11]. **orbits** [Hal87]. **Order** [Mac98, Rho50, VIK98, Hos87, Hos89, Kru94, Ano24b]. **Orders** [CT67b, CT67a]. **organized** [Ruf82, Sal69]. **Organizing** [Dra23]. **Origin** [Dir83b, Cor70]. **Original** [Ano34a]. **Origins** [Moy81b]. **orthogonal** [Dir55c, Vil90b]. **orthogonally** [KM84]. **oscillator** [Cra93, DST92, LMV91, MSB92, de 91]. **Osnovy** [Dir32a, Med89]. **Other** [L.88, K.L88, Tau62, Bri95a, Rei72a, Rei72b, Sha87]. **Our** [Bek86, Dir71b]. **Overlap** [Neu00, Tal04]. **Owen** [Ryc17]. **Own** [Bek86]. **Oxford** [RS10, Ano24d].

P [And88, Bel73, Ben34, Dal87b, Dar96, Dav36, Dir37c, Eps35, Ett31, Hal78, Hei30a, Hen89, Hov96, Jär64, Kil76, KMPD85, L.88, LW78, LJ31, Pol58, Ram89, Sch69, Sch85, Sch88, Stu88, Suc67, Tem35, War96, Wil36, Ryc17]. **P.** [Ano85, BP79a, Cha73, Dal95, Dar96, Dir80a, Eli87, Got11, Hei30b, HK93, Jär64, Kri87, MS87, Med90, Meh72, Meh87b, Meh87c, Pau30, Sch94b, Smo84, Wri16]. **P/b** [Sch85]. **packet** [SBZ90]. **Padé** [Rod80]. **pages** [RS10]. **Pair** [EKI94, KM84, EKI94]. **Palais** [Dir48e]. **Pantheon** [Lee21]. **paper** [Dit15, Pei42]. **Papers** [Ano75, Anoxx, Dir03b, Dir04, Dir05b, HDW75, Sch58, Sch03, vN96, CH16, DPI71, DP97, Dor82, GG76, Haw11, Oak00, Wig96d]. **para** [JM99]. **para-supersymmetry** [JM99]. **Parameter** [Som36, KM84]. **parameters** [DW09, Som36]. **Part** [MR87, Dir43a, Har28, PFD43, Wig96d]. **Particle** [BH83a, BH83b, Dir24c, Dir73h, Roz20, Ser12, AW17, BB85, Bou01, BG90, Bro77, BH82, CY91, Dir64e, DP03, FA01, IT84, IT88, Kat00, LCH10, Nil82, OS81, Ogu96, Rou84, SMI83, SS98, Son99, dB51]. **Particles** [And88, Ano18, Dir62e, Cor70, Dar90, Dir74a, Dir86, FW87, Fis10a, Fis12a, Kos86, KP83, Mil07, PB68, RS84, Riv94, SV93, Sri83, dB52a]. **particular** [CGKS94, MN97]. **particule** [Bou01]. **particules** [dB51, dB52a]. **partir** [BI34]. **partnership** [BR87]. **Pascual** [Kra15b]. **Passion** [Jon08]. **past** [Pet11]. **Path** [Nak97, Nak00, OS81, PS79, Bel82, FH65, FHS10, IT84, KY93, Len14, Rum86, SS72, SH99, Zas89]. **path-integral** [SS72]. **path-space** [Zas89]. **pathways** [Inf33]. **Paul**

[Ble86, Cas10, Dar91, Dir74d, Dys10, Far16, Hen89, Kra06a, L.88, Ram89, RS10, Sch85, Sch88, Sti13, Stu88, Tor87, Wig88, Wig96a, Ano52, Ano83a, Ano83b, Ano10, Anoxx, BvdM83, BVV84, Bok08, Bri95b, BR87, Bro06, Cas85, CH16, CMO00, Cri18, DP86, Dal87a, Deb13, Dir87a, Dys87, Far09a, Far09b, Far16, Fis10b, Fis12b, God98, Hal85, Kem87, Koz90, Kra13, KW87, K.L88, Lan87a, Lan87b, McC04, MB11a, Mot87, Oak00, Pai98, Pai00b, Pei85, Sno73, Tay87b, Wal09, Wig87b, Wig96c, dBDW+84, Kib98]. **Pauli** [CV02, Dit15, GH75, Hor11, JW28, Sch99]. **Paulische** [JW28]. **PC** [IKRT91]. **peace** [Kra17]. **pedagogy** [BN13]. **Peierls** [DP97]. **perfect** [IV85]. **perfection** [Dir79m]. **Periodic** [Tau61b, FSY00, NP96]. **Perlman** [Dir64a]. **permeate** [BMP14]. **personal** [Oak00]. **perspective** [Dir75c, Kra06b]. **perspectives** [HE82]. **Perturbation** [Kis98, Löw64, Zor80, Dir55c]. **Peter** [L.88]. **Phase** [Lin10, Nil82]. **Phase-integral** [Lin10]. **phenomena** [Dir30c]. **phenomenological** [EAW15]. **Philosophy** [UM86, Dir37c]. **Photo** [Ano83a, Ano83b, DH32a]. **Photo-electric** [DH32a]. **Photon** [MRB75]. **Phys** [Szm99]. **Physical** [Dir27b, Dir37c, Dir87c, Dor82, GL23, Tel48, D'A02, Dic59, Dir42e, Dir68b, Dir84c, Dir84e, ES10, Jor37, Pet85, Pet88, DSK72]. **physiciens** [CT12]. **Physicist** [Dir63a, Dys74, Hen89, Ram89, Sch88, Stu88, Dir73a, Dir83a, Gre05, KW87, Meh73, L.88]. **Physicists** [Ano33, Gun15, Hür22, Ser12, vW02, CT12, Fre87]. **Physics** [And88, Ano34b, BDH70, BH83a, BH83b, Bun82, Dir76a, Dir76b, Dir84b, Dys93, Gam85, Hal78, HSD34a, Hen84, HK93, Irv83, Koz90, Kra82, Kur73, McW73, Med90, Meh73, Mla98, Pau45, RCC+06, Rob85, Ruf82, Ryc17, Sch85, Stu18, Suc67, Zic88, AG13, Ano65, BN13, BDH+89, Bra09, BH82, BP79b, CM86, Dir39c, Dir53a, Dir69d, Dir70a, Dir70b, Dir71c, Dir71d, Dir77a, DHS78, Dir80d, Dir81b, Dir82d, Dir89, Dor82, EAW15, FF91, FW87, Gam66a, Gam66b, Gam72, Haw11, IPM73, Kae48, KHFA67, KPW75, KPS+78, KMPD85, McC04, Meh72, Meh75, Meh87b, Per80, RC13, Rec97, Sal69, SS03, Str11, Wea16, Wei77, Zic00, CCJ+34, L.88, LW34, Wig96d, Str71]. **Physik** [Ano51, Dir53a, Dir77a]. **physikalischen** [Jor37]. **Physiker** [vW02]. **physique** [CCJ+34]. **Picture** [Dir63a]. **Pictures** [Dir64a]. **piece** [Wil03]. **Pierre** [Ble86, Tor87]. **pilot** [Col12, dB52b]. **pilot-wave** [Col12, dB52b]. **pilote** [dB52b]. **Pinpointing** [Ano12]. **pioneers** [DR93]. **Planar** [CH02]. **Planck** [Ano52, BF12, Fis10a, Fis12a, Ano12, Bos24, Cra88, Fis10a, Fis12a, Inf61, Inf63, KM12, MR82d, MR82e, Noe73, Peg77, WB78]. **Plancks** [Bos24]. **plane** [BN72, DK89, Kim80a, Mur71]. **plane-wave** [BN72]. **play** [MB11b]. **Playing** [Pai87]. **plus** [DSP03]. **Pluto** [RA11]. **Poet** [Ano33]. **Poincaré** [Dir72a]. **point** [All03, Dir48b, Ric03]. **point-circle** [All03]. **Poisson** [FLS76, Lan72]. **Pol″** [Koz90]. **Poles** [Dir48a, Ama68, AC72, Dir48d, Dir84d]. **Polish** [Inf33]. **politics** [Sch99]. **polya** [Dir90b]. **Polygamma** [Din58]. **Polymath** [Har01, Hen89]. **polynomials** [MR10]. **Pontifical** [Dir80c]. **Pontificia** [Buc80]. **pontosságának** [Neu33]. **Portrait** [Pai00a]. **portraits** [Far01]. **Position** [BF12, Hin77, KM12, Dic59]. **Positioning** [BF12, KM12]. **Positive** [Dir71f, Dir72c, Dir73h, Dir71e, Gam33, Pei34]. **Positive-Energy**

[Dir71f, Dir72c, Dir73h, Dir71e]. **Positron** [Dir75a, HE06, Mon95, Pas12, CDK90, Dir34a, Dir34c, Dir34b, Dir84a, Far10, Gol05, Hei34b, Hei34a, HE35, Maj37, BBC+94]. **positrone** [Maj37]. **Positrons** [Dir34d, Hei34b, Dir65b, Dir91b, Hei34a, HE35]. **possibility** [Mal75a, Mal75b]. **Possible** [Han99, JRF06, Dir71d, Vul03]. **Possibly** [Can98]. **Post** [Ano34b]. **posteriori** [ABR06]. **posters** [Ano02]. **Postscript** [Sch94c, Mit10]. **potential** [Ara93, BC78, DEŠ92, DSP03, GS84, Hyl84, IS10a, IS10b, IU86, KY93, yRSBSV99, RU81, SMI83, Vil95, YI90, de 89]. **potentials** [BCK97, BM70, Cor70, Cri76, Fin00, SCSB93]. **power** [SMI83]. **pozitrona** [Dir34b]. **Pp** [Hen89, War96, Dre90, Dys10, Suc67]. **Precisely** [Cor07]. **Precision** [Csa92, Fer86]. **predict** [Far10]. **predictable** [Cor07]. **Prediction** [Dir78h, GLR14, Pas12, Gol05]. **Prehistoric** [Irv83]. **Prehistory** [Dir80f]. **Preis** [Ben34, Ble86, Deh36, Wil36]. **Prejudice** [Dir76a]. **prejudices** [Dir77a]. **Preliminary** [Dir26e, Dir67c]. **Presence** [MC70, AD87, Fin00, Hau72, HM99a, SV93, SS98, Vil95, YI90]. **Present** [Dir83c, Dir59f]. **presentation** [Ano65]. **presented** [Dor82]. **preservation** [Oak00]. **Press** [Ble86, Dre90, Hen89, Hen91, RS10, Ryc17, Sch85, Suc67, War96]. **Presymplectic** [GNH78]. **Pretty** [Dir82a, Dir82e, Dir85]. **previous** [Dat04]. **Primordial** [Noe73, Kha86, KPW86]. **principe** [Bor49]. **principes** [Dir31a, Dir90a]. **Principios** [Dir67b, Dir68c, Dir69e]. **Principle** [BD61, Dic61, HND+62, Plo15, BP95, CGK72, Dir24b, Dir74a, LR79, LRK80, PD62, Dir61a]. **Principles** [Bro06, Dav36, Dir30b, Dir30f, Dir35c, Dir47b, Dir58c, Dir59e, Dir67b, Dir67e, Dir68c, Dir69e, Dir81d, Dir03c, Dra23, Eps35, Ett31, Hei30b, LJ31, Plo15, Pol58, Tem35, Dir31a, Dir09, Hei30a, Jär64, Jor52, Jor55, Kra13, Pau30]. **Printsipy** [Dir60c]. **Prinzipien** [Dir30b]. **Priscilla** [BBC+94]. **Prism** [UM86]. **privedshem** [Bel82]. **Prize** [HSD34a, Pau45, Ano24d, Dir71a, Ano33, Ano34b, Aur71, DS83]. **prize-winners** [Ano24d]. **Prizes** [LW34]. **probabilistic** [Leh91]. **Probability** [Kos86]. **Probe** [IRV+08]. **Problem** [DJ95, Cha72, Cor70, Cor86, Dir30d, Dir33c, Dir80g, IU86, NdlC08, YI90, ZdSS91, Sta12]. **problèmes** [Dir30h]. **Problems** [DH32b, JP73, Nis32, All04, Ant69a, Ant69b, ABR06, BM98, Dir71c, PB68, Str71]. **procedure** [PSA94]. **Proceedings** [Dys74, KP83, Zic88, Hal78, Kur73, KPS+78, Per80, Sal69, Wat91, BB03, BCEP94, Ruf82]. **processes** [Car94, Dir36a]. **product** [Mor85]. **Production** [Sch06]. **Prof.** [Ano34b, Dir37c, Dir61b]. **professional** [Bus10]. **Professor** [Dal87b, Fre87, HC87]. **Professors** [KN03, Nis35a, Nis35b, Ano24c, LW34]. **Profs** [Ano33]. **program** [BDM81b, BDM84]. **prohibition** [JW28]. **Projections** [RK96]. **Projective** [Sch91a, TVvN34]. **Proof** [Bar81]. **propagating** [CGKS94]. **Propagation** [IT84]. **propagator** [AW95, IJ02, Rum86]. **propagators** [RR93]. **Properties** [Ara93, Goo55, Beh85, CCJ+34, GZDA01]. **property** [Mur71]. **propriétés** [CCJ+34]. **Proton** [Dys67, Mon95, SBK+08, CKYY07, Dir30g].

proton-electron [CKYY07]. **Proton-to-Electron** [SBK+08]. **Protons** [Dir30i, Dir30e, Dir30j]. **Proximity** [FK08]. **Pseudospectral** [BCJT16]. **pseudospheres** [Cla94]. **pseudospin** [IS10b]. **Psi** [Din58]. **pure** [Ric03]. **Puti** [Dir83d, Bel82]. **Putting** [Wil93b].

QED [Sch94a]. **quadrature** [MKK05, Sag91]. **quanta** [Bor49, Inf33, Inf34b, Lub82]. **Quantelung** [Fer26]. **Quantengenies** [Far16]. **Quantenmechanik** [Deh36, Dir27e, Haa34, Dir30b, Wey31a]. **Quantensprung** [Fis10a, Fis12a]. **Quantentheorie** [Dir28f, Dir28d, Dir28e]. **quantification** [Dir49c]. **quantique** [BI34, Dir30h, Dir31a, Dir53c, Dir90a]. **quantisation** [Her18]. **Quantised** [Dir31b]. **Quantities** [WBR76]. **Quantization** [Pau43, Riv94, AT94, BV85, CDK90, Dar90, Dir49c, Dir68d, Fer24, Fer26, OS81, OP95, PSA94, SS72, YI90]. **quantized** [BSW98]. **quantizzazione** [Fer24]. **Quantum** [Ano75, BVV84, Bel73, Bel99, Bos24, Bro05, Bro06, Dav36, DL82, Dir25e, Dir26a, Dir26d, Dir26e, Dir27b, Dir27d, Dir29b, Dir30b, Dir30f, Dir32a, DH32b, Dir35c, Dir43b, Dir47b, Dir48c, Dir54d, Dir55d, Dir58c, Dir59e, Dir65a, Dir67a, Dir67b, Dir67e, Dir67c, Dir68c, Dir69e, Dir81d, Dir82f, Dir83b, DPP97, Dir02, Dir03c, Dir03b, Dir04, Dir05a, Dra23, Dun12, Dys07a, Dys10, Eps35, Ett31, Fey48, FH65, FBD05, FHS10, GG02, GGK02, Gam85, GL23, Hei30a, Hei30b, HSD34b, HDW75, Hür22, II08, Jon08, LJ31, Mar65, Nis32, Plo15, Pol58, RS10, Sch69, Sch85, Sch94b, Sch58, Sch03, Suc67, Tau61a, Tem35, Wey31b, Wey50, dBDW+84, vdW67, Ant69a, Ant69b, BN13, BP95, Bok04, BI34, Bor49, Bro77, Col12, Dir25b, Dir26b, Dir26f, Dir26c, Dir27e, Dir27c, Dir28f, Dir28d]. **quantum** [Dir28e, Dir28b, Dir28c, Dir29a, Dir31a, DFP32, Dir32b, Dir33b, Dir33c, Dir35b, Dir37a, Dir37d, Dir39b, DPP42, Dir42e, Dir45b, Dir46, Dir47a, Dir49a, Dir51d, Dir55a, Dir55b, Dir57b, Dir62a, Dir64b, Dir64c, Dir64d, Dir64f, Dir66a, Dir66b, Dir67f, Dir68a, Dir68b, Dir69a, Dir71a, Dir72d, Dir73f, Dir73g, Dir74c, Dir77d, Dir78d, Dir82b, Dir87d, Dir99, Dir01, Dir09, DR93, Ehb22, Ehb23, Far16, Fei02, Fis10a, Fis12a, F+00, Gam66a, Gam66b, Gam72, Got11, Gre05, Haa34, Haw11, Jär64, Jos72, Kra13, KHFA67, Len14, Lip87, Lou83, Mat87, MS87, Med89, MR82a, MR82c, MR82d, MR82e, Meh87a, MR00, MB11b, Pau30, Pod97, Pol87c, SW72, Sel94, Str11, Tjo75, vEdG85, vdW68, vdW07, Ble86, Dir54a, Tor87, Bus10]. **quantumelektrodynamischen** [Jär64]. **quark** [Dir77c]. **Quasars** [MWF07, SCPA04]. **quasiclassical** [YI90]. **Quasistellar** [Gam67d]. **quaternions** [Dir45a, MB91]. **Quelques** [Dir30h, Dir48e, dB33]. **Quest** [Ble86, Sch85, Tor87, BVV84, dBDW+84]. **question** [BP79b]. **quintessence** [AG03].

R [Dar96, L.88]. **R.** [Dir61a, War96]. **R.S.** [Dir61b]. **Radial** [BBR85, ROB64, SWO76, IJ02, IM95, Lin10, SFVW95, SG11]. **radiating** [Dir38a]. **Radiation** [Dir27d, Noe73, Dir25c, Ehb22, Ehb23, Web87]. **Radium** [Kae48]. **Raleigh** [BCEP94]. **random** [RR93]. **range**

[BC78, Dir73c, Dir73d]. **Rank** [Kir97]. **Rank-One** [Kir97]. **Rapports** [CCJ+34]. **Rate** [Dir43a, PFD43]. **Ratio** [SBK+08, CKYY07]. **Rational** [CT67a, CT67b, SS11, D'A02]. **Ray** [Sei36]. **Rayleigh** [WY85]. **Razmyshleniya** [Dir05b]. **reactor** [LT04]. **Reactors** [Irv83, Mau76]. **Realism** [Pas12]. **realities** [WD06]. **Reality** [RS10]. **really** [Fra04, Nor86]. **realm** [Kae48]. **recalls** [DRFS80]. **reception** [Ehb22, Ehb23, Lub75, MR82c]. **Recollections** [Dir77f, Dir87e, Dir90c, Lan87b]. **red** [Inf63]. **REDUCE** [Vul03]. **reduced** [Hyl84, Lég95, MHN98, OP95]. **reduces** [IU86]. **reducible** [Vil90a]. **reducing** [GL92]. **Reduction** [Nil82, FZ91, Hos89, LH86, PSA94]. **réécriture** [Dav98]. **reexamined** [GT86]. **reference** [UK82]. **reflection** [KD33]. **Reflections** [RK96]. **reformulation** [Dir60d]. **Regime** [BCJT16]. **Reissner** [FSY00]. **relation** [Bok04, Dir39c, Dir51d, Pau25, Wig72b]. **Relations** [UL31, Bel85]. **relationships** [Lan05b]. **relativiste** [Dir53c]. **relativistes** [LT62]. **Relativistic** [BD61, Dir32b, Dir36b, Dir55d, Dir71f, Dir72c, Dir77h, Dir79h, Dir79i, Dir79j, Dir79k, EKI94, Fey48, Hos87, Sei36, AW17, Das96, Dir49b, Dir55b, Dir59f, Dir62a, Dir71e, Dir77g, Dir77i, DFW99, Gol05, Lip87, PP71, WY85, Kra81b]. **relativistischen** [Sei36]. **Relativity** [Ano62, Dic64, Dir24c, Hov96, Inf34a, Ruf82, Sch31a, Sch31b, Hor11, Rob15, TVvN34, DN96, Dir26f, Dir72d, Dir73f, Dir75g, Dir82c, Dir96, Kil76, Wil93b, Wil05]. **Relaxation** [Col12]. **release** [Dir42a]. **relics** [Lee95]. **relyativistskoi** [Dir59f]. **Remark** [Goa97]. **remarkable** [Dir63b]. **Remarks** [CK78, Wig96b, vN28, dB33, Hei34b, Hei34a, Kim80a, Kim80b]. **remarques** [dB33]. **Remembering** [Wig87b, Wig96c, Wig88]. **Remembrances** [GJEF10, Sha87]. **reminiscence** [Pol87b]. **Reminiscences** [Hen89, Jef87, KW87, Mot87, Eli87, L.88, Sch88, Stu88, Ram89]. **Renormalization** [BJ03, Dir81a]. **Replace** [GH94]. **Reply** [Dir61a, Dir64a, Dir52a, Dir52b]. **report** [KHFA67, Som34]. **Reports** [HSD34b, Dir28a, CCJ+34]. **Representation** [AW95, JP73, CPV10, D'A02, Dat04, Dir63b, Hos82, Hos83, Rum86]. **Representations** [Bor85, DJ95, Wig39, Dir45c, JT10, Lee95, yRSBSV99, NdlC08, Wig89]. **requirements** [Dir84c, Dir84e]. **Research** [BN13, Dic59, Bus10, Sha87]. **Resolvent** [Tam03]. **resonances** [BB85]. **Resonant** [Bou08]. **Results** [Ano34a, Dat95, WP96]. **retrieval** [DSK72]. **Retrospect** [BBBM90]. **reversal** [Dir37d]. **Review** [And88, Bel73, Ble86, Bri18, Bro91, Cas10, Dar96, Dav36, Dre90, Dys74, Dys10, Ell91, Eps35, Ett31, Goe16, Hen89, Hen91, Hov96, Kib98, Kil76, L.88, LJ31, Pau30, Pol58, Ram89, Ryc17, Sch69, Sch85, Sch88, Sch91b, Sti13, Stu88, Suc67, Tem35, Tor87, War96, Her18]. **Revised** [Ano34a]. **revisited** [Rug88]. **Revolution** [Ano18, Kae48, Bel99, CM86, Gre05, Kle05, Ano05, Kle05]. **rewriting** [Dav98]. **Richard** [Hov96, And88]. **Riemannian** [Dir59a, MB90, MB91, Mar88]. **Right** [Wil93b]. **ring** [ML93]. **Rings** [Tau63a]. **rise** [MR82d, MR82e, MR87]. **Robert** [Dir71a, L.88]. **Robertson**

[KL90, KL92, VP90, Zec96]. **Rockies** [Van72]. **role** [Dir53a]. **Röntgenstrahlen** [Sei36]. **roots** [PKKL09]. **rotation** [NdlC08]. **rotational** [IV85, IV87, IK91, Jin91]. **route** [Bel94]. **Row** [Dat95]. **Royaumont** [LT62]. **Run** [zXZ06]. **runaway** [CKYY07]. **Russian** [Koz90, Ano33, Bel82, BDH70, Dir32a, Dir34b, Dir59f, Dir68a, Dir74f, Dir99, Dir02, Dir03b, Dir04, Dir90c, Dir90d, Dir05b, Med89, Med90]. **Rutherford** [Lak96]. **RW** [Lee23].

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ZDF+84, BB85, Dir73c, Dir73d, KMW86, Pei92]. **Symmetry** [Dir55f, Ant69a, Ant69b, BR97, FA01, IS10b, IV85, IV87, IK91, Jin91, KM84, Lee95, Vil90b, Ant69b]. **Symplectic** [BNB94, Reu99]. **Symposium** [Meh73, Sal69, Wat91, BB03, Dys74, HE82, LW78, Sno73, Wig96b]. **synthesis** [SBZ90]. **System** [BF12, KM12, All04, HJKS91, IKRT89b, KY93, LCH10, MD88, SM03]. **Systematic** [SBB+62]. **Systems** [GZM05, AT07, Dir29b, Dir48c, Fer24, GB90, Oev88, PSA94, Rüd84, RTV99, Sei99, TM85, YG77].

T [Bus10, CK78, Dir02, Dir03b, Dir04, Dir05b]. **T.** [Dir52a]. **tale** [BMS02a]. **talk** [Bri95a]. **Tallahassee** [BB03, Hal78, LW78, Wig87a]. **Taub** [CV02]. **Taylor** [L.88, Stu88, Dar91]. **team** [Car01]. **techniques** [RL68]. **Teilchen** [Fis10a, Fis12a]. **temperature** [Dir24a, PD62]. **Ten** [Jon08]. **tensor** [Bet83, Dar90, DMH85, Dir55e, IS10a, Lan05b, RM96, SS98, WY84]. **tenu** [CCJ+34]. **Teoria** [Maj37, Bun52b]. **teorii** [Dir59f, Dir90b, Med89]. **Teoriya** [Dir34b, Dir02, Dir03b, Dir04]. **Term** [Sch91a, FG87, KY01, Wot91]. **Terms** [Löw64, AW95, ABR06, Cor70, Mal75c, MHN98]. **Test** [BF12, Dir79l, KM12, Rob83, Wil93b, Dir80b]. **Tests** [Rob85, Ano08, MBS02]. **tetrad** [Can98, Nas97, RM95]. **tetrads** [UB83]. **Tevatron** [Sch06]. **textbook** [Tiw12]. **textbooks** [BN13]. **Thales** [Lak96]. **théeorie** [Dir48e]. **Their** [Sch06, Cor70, Dir73b, Dir78a, Dir86, Dys72, LC98, Oak00, Som36, Uza03]. **them** [Pic08]. **Theorem** [RRS06, DP03, Kla90, Sem93, Bar81]. **theorems** [Cra85]. **theoretic** [WY84]. **Theoretical** [Dic64, KPS+78, KP83, L.88, Meh73, Ruf82, Sal69, Dir69d, Dir70b, Dir82d, Dir89, EAW15, Jor52, Jor55, Lan30, Lan05a, Meh72, Meh87b, Uza03]. **theoretischen** [Jor52, Jor55]. **Theorie** [Hei34b, Hei34a, HE35, Lan30, Neu33, vN28, Dir34c, Bor49, Bou01, Dav98, Dir39a, PS32a, PS32b, dB32a, dB33, dB34, dB51, dB52b, dB52a, Som36]. **Theorien** [Deh36, Haa34]. **Theories** [BSW88, KPW75, Mar84, McA90, WW86, BM98, GH75, Haa34, Sal87a, Sal87b, Szm98, Szm99, LT62]. **theorist** [Ehb22, Ehb23]. **Theory** [Ano30, Ano34a, BD61, Bro05, Dir27d, Dir30i, Dir30j, DH32b, Dir34d, Dir43a, Dir55d, Dir65b, Dir75g, Dir75a, Dir76c, Dir79d, Dir82f, Dir83b, Dir83c, Dir91b, Dir96, DPP97, Dir02, Dir03b, Dir04, Dra23, DuM28, Dun12, Dys07b, EKI94, FBD05, Gam85, HSD34a, HE06, HL38, Hov96, Inf34a, Inf53a, Kil76, Kim80a, Kim80b, Kra81b, Löw64, Mar65, Neu33, Plo15, Sch91a, Sch31a, Sch31b, Sla29, Tau61a, Tau61b, Tau63b, Wey31b, Wey50, Wie29, vN28, AW17, BNB94, Bor49, Bor52, Bou85, Bou01, Bun52b, BV85, Caw69, Che77, Col12, Dav98, Dir26c, Dir27c, Dir28f, Dir28d, Dir28e, Dir28b, Dir28c, Dir34a, Dir38a, Dir41, DPP42, Dir48c, Dir48d, Dir48b, Dir49a, Dir50a, Dir51c, Dir52d, Dir54c, Dir55b, Dir58d, Dir59d, Dir59f, Dir62a, Dir64d, Dir66b, Dir71a, Dir73g, Dir78d, Dir78f, Dir79f, Dir80h, Dir84c, Dir84d]. **theory** [Dir84e, Dir87d, Dir79m, DSP03, Edd46, Ehb22, Ehb23, GB90, Gam33,

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[Dir26a] P. A. M. Dirac. The elimination of the nodes in quantum mechanics. *Proceedings of the Royal Society of London. Series A, Mathematical and physical sciences*, 111(757):281–305, May 1, 1926. CODEN PRLAAZ. ISSN 0080-4630. URL `http://www.jstor.org/stable/94909`. Russian translation in [Dir03b, Vol. II, pp. 91ff].

Dirac:1926:QA

[Dir26b] P. A. M. Dirac. On quantum algebra. *Mathematical proceedings of the Cambridge Philosophical Society*, 23(4):412–418, 1926. CODEN MPCPCO. ISSN 0305-0041, 1469-8064. Russian translation in [Dir03b, Vol. II, pp. 140ff].

Dirac:1926:TQM

[Dir26c] P. A. M. Dirac. On the theory of quantum mechanics. *Proceedings of the Royal Society of London. Series A, Mathematical and physical sciences*, 112(762):661–667, October 1, 1926. CODEN PRLAAZ. ISSN 0080-4630. URL `http://www.jstor.org/stable/94692`. Russian translation in [Dir03b, Vol. II, pp. 147ff].

Dirac:1926:QM

[Dir26d] P. A. M. Dirac. *Quantum Mechanics*. Ph.D. thesis, Cambridge University, Cambridge, UK, June 17, 1926. According to [Far09b, p. 101], this is the first thesis to be submitted anywhere on the subject of quantum mechanics.

Dirac:1926:QMP

[Dir26e] P. A. M. Dirac. Quantum mechanics and a preliminary investigation of the hydrogen atom. *Proceedings of the Royal Society of London. Series A, Mathematical and physical sciences*, 110 (755):561–579, March 1, 1926. CODEN PRLAAZ. ISSN 0080-4630. URL `http://www.jstor.org/stable/94410`. Reprinted in [Dir67c]. Russian translation in [Dir03b, Vol. II, pp. 72ff].

Dirac:1926:RQM

[Dir26f] P. A. M. Dirac. Relativity quantum mechanics with an application to Compton scattering. *Proceedings of the Royal Society of London. Series A, Mathematical and physical sciences*, 111 (758):405–423, June 2, 1926. CODEN PRLAAZ. ISSN 0080-4630. URL `http://www.jstor.org/stable/94709`. Russian translation in [Dir03b, Vol. II, pp. 117ff].

Dirac:1927:CEW

[Dir27a] P. A. M. Dirac. The Compton effect in wave mechanics. *Mathematical proceedings of the Cambridge Philosophical Society*, 23 (5):500–507, 1927. CODEN MPCPCO. ISSN 0305-0041, 1469-8064. Russian translation in [Dir03b, Vol. II, pp. 163ff].

Dirac:1927:PIQ

[Dir27b] P. A. M. Dirac. The physical interpretation of the quantum dynamics. *Proceedings of the Royal Society of London. Series A, Mathematical and physical sciences*, 113(765):621–641, January 1, 1927. CODEN PRLAAZ. ISSN 0080-4630. URL `http://www.jstor.org/stable/94646`. Russian translation in [Dir03b, Vol. II, pp. 171ff].

Dirac:1927:QTD

[Dir27c] P. A. M. Dirac. The quantum theory of dispersion. *Proceedings of the Royal Society of London. Series A, Mathematical and physical sciences*, 114(769):710–728, May 2, 1927. CODEN PRLAAZ. ISSN 0080-4630. URL `http://www.jstor.org/stable/94735`.

Dirac:1927:QTE

[Dir27d] P. A. M. Dirac. The quantum theory of the emission and absorption of radiation. *Proceedings of the Royal Society of London. Series A, Mathematical and physical sciences*, 114(767): 243–265, March 1, 1927. CODEN PRLAAZ. ISSN 0080-4630. URL `http://www.jstor.org/stable/94746`. Russian translation in [Dir03b, Vol. II, pp. 285ff].

Dirac:1927:QS

[Dir27e] P. A. M. Dirac. Über die Quantenmechanik der Stoßvorgänge. (German) [On the quantum mechanics of collisions]. *Zeitschrift für Physik*, 44(??):585–595, 1927. CODEN ZEPYAA. ISSN 0044-3328. Russian translation in [Dir03b, Vol. II, pp. 191ff].

Dirac:1928:DFR

[Dir28a] P. A. M. Dirac. Discussion following reports of Bohr and Heisenberg. In ????, editor, *Electrons and photons (5th Conseil de physique de l'Institut International de Physique, Solvay, 24–29 October 1927, Bruxelles)*, pages 258–263. Gauthier-Villars et cie, Paris, France, 1928. LCCN ????

Dirac:1928:QTEa

[Dir28b] P. A. M. Dirac. The quantum theory of the electron. I. *Proceedings of the Royal Society of London. Series A, Mathematical and physical sciences*, 117(778):610–624, February 1, 1928. CODEN PRLAAZ. ISSN 0080-4630. URL `http://www.jstor.org/stable/94981`.

Dirac:1928:QTEb

[Dir28c] P. A. M. Dirac. The quantum theory of the electron. II. *Proceedings of the Royal Society of London. Series A, Mathematical and physical sciences*, 118(779):351–361, March 1, 1928. CODEN PRLAAZ. ISSN 0080-4630. URL `http://www.jstor.org/stable/94909`.

Dirac:1928:QEGa

[Dir28d] P. A. M. Dirac. Über der Quantentheorie des Elektrons. (German) [On the quantum theory of electrons]. *Physikalische Zeitschrift*, 29(??):561–563, ???? 1928. CODEN PHZTAO. ISSN 0369-982X.

Dirac:1928:QEGb

[Dir28e] P. A. M. Dirac. Zur quantentheorie des elektrons. (German) [On the quantum theory of electrons]. In Hans Falkenhagen, editor, *Leipziger Vorträge 1928: Quantentheorie und Chemie*, pages 85–94. Verlag von S. Hirzel, Leipzig, Germany, 1928. LCCN ???? Lecture given in June 1928; manuscript translated to German by A. Eucken.

Dirac:1928:QE

[Dir28f] P. A. M. Dirac. Zur Quantentheorie des Elektrons. (German) [Toward a quantum theory of the electron]. *Leipziger Vorträge*, ??(??):85–94, ???? 1928.

Dirac:1929:BSQ

[Dir29a] P. A. M. Dirac. The basis of statistical quantum mechanics. *Mathematical proceedings of the Cambridge Philosophical Society*, 25(1):62–66, 1929. CODEN MPCPCO. ISSN 0305-0041, 1469-8064. Russian translation in [Dir03b, Vol. II, pp. 208ff].

Dirac:1929:QMM

[Dir29b] P. A. M. Dirac. Quantum mechanics of many electron systems. *Proceedings of the Royal Society of London. Series A, Mathematical and physical sciences*, 123(792):714–733, April 6, 1929. CODEN PRLAAZ. ISSN 0080-4630. URL `http://www.jstor.org/stable/95222`. Russian translation in [Dir03b, Vol. II, pp. 213ff].

Dirac:1930:AM

[Dir30a] P. A. M. Dirac. Approximate methods. Manuscript in English held at Churchill College Archives (Cambridge, England). This is the text of chapter XIA of the Russian edition of [Dir30f] (M.-L. GTTI, 1932; translated by M. P. Bronshtein, ed. D. D. Iwanenko), pp. 243-257, with the note 'Author's addition to the Russian edition' [note from [DP86, p. 179, ref. 31]]., 1930.

Dirac:1930:PQG

[Dir30b] P. A. M. Dirac. *Die Prinzipien der Quantenmechanik. (German) [The Principles of Quantum Mechanics].* Verlag von S. Hirzel, Leipzig, Germany, 1930. xi + 274 pp. LCCN ???? Translated by Werner Bloch from the English original.

Dirac:1930:NEP

[Dir30c] P. A. M. Dirac. Note on exchange phenomena in the Thomas atom. *Mathematical proceedings of the Cambridge Philosophical Society*, 26(3):376–385, 1930. CODEN MPCPCO. ISSN 0305-0041, 1469-8064. Russian translation in [Dir03b, Vol. II, pp. 268ff].

Dirac:1930:NID

[Dir30d] P. A. M. Dirac. Note on the interpretation of the density matrix in the many-electron problem. *Mathematical proceedings of the Cambridge Philosophical Society*, 27(2):240–243, ???? 1930. CODEN PCPSA4. ISSN 0008-1981. Russian translation in [Dir03b, Vol. II, pp. 279ff].

Dirac:1930:AEP

[Dir30e] P. A. M. Dirac. On the annihilation of electrons and protons. *Mathematical proceedings of the Cambridge Philosophical Society*, 26(3):361–375, 1930. CODEN MPCPCO. ISSN 0305-0041, 1469-8064.

Dirac:1930:PQM

[Dir30f] P. A. M. Dirac. *The Principles of Quantum Mechanics*. International series of monographs on physics (Oxford, England). Clarendon Press, Oxford, UK, 1930. x + 257 pp. LCCN QC174.12 .D57 1930. On page 96 of this book, Dirac introduces the notation $\hbar = h/(2\pi)$, where "$\hbar$ is a new universal constant having the dimensions of action." That symbol is actually a letter in the Serbian alphabet (Unicode character U045B, Cyrillic small letter tshe), but it is unknown to this bibliographer whether Dirac knew that. It seems more likely that he simply added a stroke across h as a convenient indication of its division by 2π.

Dirac:1930:P

[Dir30g] P. A. M. Dirac. The proton. *Nature*, 126(3181):605–606, October 18, 1930. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL `http://www.nature.com/nature/journal/v126/n3181/pdf/126605a0.pdf`.

Dirac:1930:QPM

[Dir30h] P. A. M. Dirac. Quelques problèmes de mécanique quantique. *Annales de l'Institut Henri Poincaré*, 1(4):357–400, 1930.

CODEN AIHPA2. ISSN 0365-320x (print), 2400-4855 (electronic). URL http://www.numdam.org/item?id=AIHP_1930__1_4_357_0. Baed on lectures given at the Institut Henri Poincaré, 13, 14, 19, and 20 December, 1929.

Dirac:1930:TEPa

[Dir30i] P. A. M. Dirac. A theory of electrons and protons. *Proceedings of the Royal Society of London. Series A, Mathematical and physical sciences*, 126(801):360–365, January 1, 1930. CODEN PRLAAZ. ISSN 0080-4630. URL http://www.jstor.org/stable/95359.

Dirac:1930:TEPb

[Dir30j] P. A. M. Dirac. Theory of electrons and protons. *Uspekhi Fizicheskikh Nauk*, ??(9):581–591, September 1930. CODEN UFNAAG. ISSN 0042-1294 (print), 1996-6652 (electronic). URL http://ufn.ru/ru/articles/1930/9/a/.

Dirac:1931:PMQ

[Dir31a] P. A. M. Dirac. *Les principes de la mécanique quantique. (French) [The principles of quantum mechanics]*, volume 21. Les Presses Universitaires de France, Paris, France, 1931. viii + 314 pp. URL http://longstreet.typepad.com/books/2011/03/first-french-edition-of-diracs-quantum-mechanics-1931.html. Recueil des conférences-rapports de documentation sur la physique. Translated by Al. Proca and J. Ullmo.

Dirac:1931:QSE

[Dir31b] P. A. M. Dirac. Quantised singularities in the electromagnetic field. *Proceedings of the Royal Society of London. Series A, Mathematical and physical sciences*, 133(821):60–72, September 1, 1931. CODEN PRLAAZ. ISSN 0080-4630. URL http://www.jstor.org/stable/95639. Russian translation in [Dir03b, Vol. II, pp. 388–??].

Dirac:1932:OKM

[Dir32a] P. A. M. Dirac. *Osnovy Kvantovoĭ Mekhaniki. (Russian) [The Elements of Quantum Mechanics]*. Gostekhizdat, Moscow and Leningrad, USSR, 1932. ???? pp. LCCN ???? See also [Dir02, Vol. I, pp. 303ff]. Contains author's supplement to the Russian edition: Priblizhennye metody (Approximate methods).

Dirac:1932:RQM

[Dir32b] P. A. M. Dirac. Relativistic quantum mechanics. *Proceedings of the Royal Society of London. Series A, Mathematical and physical sciences*, 136(829):453–464, May 2, 1932. CODEN PRLAAZ. ISSN 0080-4630. URL `http://www.jstor.org/stable/95782`. Russian translation in [Dir03b, Vol. II, pp. 399ff].

Dirac:1933:HVC

[Dir33a] P. A. M. Dirac. Homogeneous variables in classical dynamics. *Mathematical proceedings of the Cambridge Philosophical Society*, 29(3):389–400, ???? 1933. CODEN PCPSA4. ISSN 0008-1981. Reprinted in [Sch58]. Russian translation in [Dir03b, Vol. II, pp. 461ff].

Dirac:1933:LQM

[Dir33b] P. A. M. Dirac. The Lagrangian in quantum mechanics. *Physikalische Zeitschrift der Sowjetunion*, 3(1):64–72, ???? 1933. CODEN PHZSAL. ISSN 0369-9811. URL `http://ebooks.worldscinet.com/ISBN/9789812567635/9789812567635_0003.html`. Reprinted in [Sch58, 312–320], [Dir05a], and [FBD05, 111–119].

Dirac:1933:SPQ

[Dir33c] P. A. M. Dirac. Statement of a problem in quantum mechanics. *Journal of the London Mathematical Society*, 8(??):274–277, October 1933. CODEN JLMSAK. ISSN 0024-6107 (print), 1469-7750 (electronic).

Dirac:1934:DID

[Dir34a] P. A. M. Dirac. Discussion of the infinite distribution of electrons in the theory of the positron. *Mathematical proceedings of the Cambridge Philosophical Society*, 30(2):150–163, ???? 1934. CODEN PCPSA4. ISSN 0008-1981.

Dirac:1934:TPR

[Dir34b] P. A. M. Dirac. Teoriya pozitrona. (Russian) [Theory of the positron]. In M. P. Bronstein et al., editors, *Atomnoe yadro: Sbornik dokladov i vsesoyoznoi yadernoi konferentsii [Leningrad, 24–30 September 1933]*, pages 129–144. Izdatelstvo, Akademii Nauk SSR, Leningrad, USSR, 1934. LCCN ????

Dirac:1934:TDP

[Dir34c] P. A. M. Dirac. Théorie du positron. (French) [Theory of the positron]. In Cockcroft et al. [CCJ+34], pages 203–230. LCCN ???? Address given at the Solvay Conference, October 22–29, 1933. Russian translation in [Dir03b, Vol. II, pp. 431ff].

Dirac:1934:TEP

[Dir34d] P. A. M. Dirac. *Theory of Electrons and Positrons*. A. Norstedt och Sönner, Stockholm, Sweden, 1934. 6 pp. LCCN ????

Dirac:1935:EWE

[Dir35a] P. A. M. Dirac. The electron wave equation in de Sitter space. *Annals of Mathematics (2)*, 36(3):657–669, 1935. CODEN ANMAAH. ISSN 0003-486X (print), 1939-8980 (electronic). URL `http://www.jstor.org/stable/1968649; http://www.jstor.org/stable/pdfplus/1968649.pdf`.

Dirac:1935:LQE

[Dir35b] P. A. M. Dirac. Lectures on quantum electrodynamics: 1934–1935. Report, Institute for Advanced Study, Princeton, NJ, USA, 1935. 71 pp. Notes by Boris Podolsky (first semester) and Nathan Rosen (second semester).

Dirac:1935:PQM

[Dir35c] P. A. M. Dirac. *The Principles of Quantum Mechanics*, volume 27 of *International series of monographs on physics (Oxford, England)*. Clarendon Press, Oxford, UK, second edition, 1935. xi + 300 pp.

Dirac:1936:DCE

[Dir36a] P. A. M. Dirac. Does conservation of energy hold in atomic processes? *Nature*, 137(3460):298–299, February 22, 1936. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL `http://www.nature.com/nature/journal/v137/n3460/pdf/137298a0.pdf`. See also [Pei36].

Dirac:1936:RWE

[Dir36b] P. A. M. Dirac. Relativistic wave equations. *Proceedings of the Royal Society of London. Series A, Mathematical and physical sciences*, 155(886):447–459, July 1, 1936. CODEN PRLAAZ. ISSN 0080-4630. URL `http://www.jstor.org/stable/96758`.

Dirac:1936:WEC

[Dir36c] P. A. M. Dirac. Wave equations in conformal space. *Annals of Mathematics (2)*, 37(2):429–442, 1936. CODEN ANMAAH. ISSN 0003-486X (print), 1939-8980 (electronic). URL `http://www.jstor.org/stable/1968455`.

Dirac:1937:CVQ

[Dir37a] P. A. M. Dirac. Complex variables in quantum mechanics. *Proceedings of the Royal Society of London. Series A, Mathematical and physical sciences*, 160(900):48–59, May 1, 1937. CODEN PRLAAZ. ISSN 0080-4630. URL `http://www.jstor.org/stable/96854`.

Dirac:1937:CC

[Dir37b] P. A. M. Dirac. The cosmological constants. *Nature*, 139 (3512):323, February 20, 1937. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL `http://adsabs.harvard.edu/abs/1937Natur.139..323D; http://www.nature.com/nature/journal/v139/n3512/pdf/139323a0.pdf`. See related work in [Dir38b, Tel48, Wil58, Dys67, Gam67a, Gam67d, Gam68, Alp73].

Dirac:1937:PSP

[Dir37c] P. A. M. Dirac. Physical science and philosophy: Prof. P. A. M. Dirac, F.R.S., St. John's College, Cambridge. *Nature*, 139(3528): 1001–1002, June 12, 1937. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL `http://www.nature.com/nature/journal/v139/n3528/pdf/1391001a0.pdf`. A reply to Dr. H. Dingle.

Dirac:1937:ROQ

[Dir37d] P. A. M. Dirac. The reversal operator in quantum mechanics. *Izv. Akad. Nauk. SSSR*, 4–5(??):569–575 (English), 576–582 (Russian), ???? 1937.

Dirac:1938:CTR

[Dir38a] P. A. M. Dirac. Classical theory of radiating electrons. *Proceedings of the Royal Society of London. Series A, Mathematical and physical sciences*, 167(929):148–169, August 5, 1938. CODEN PRLAAZ. ISSN 0080-4630. URL `http://www.jstor.org/stable/97128`.

Dirac:1938:NBC

[Dir38b] P. A. M. Dirac. A new basis for cosmology. *Proceedings of the Royal Society of London. Series A, Mathematical and physical sciences*, 165(921):199–208, April 5, 1938. CODEN PRLAAZ. ISSN 0080-4630. URL `http://adsabs.harvard.edu/abs/1938RSPSA.165..199D; http://rspa.royalsocietypublishing.org/content/165/921/199; http://www.jstor.org/stable/97105`. See related work in [Dir37b, Tel48, Wil58, Dys67, Gam67a, Gam67d, Gam68, Alp73].

Dirac:1939:TED

[Dir39a] P. A. M. Dirac. La théorie de l'électron et du champ électromagnétique. (French) [Theory of the electron and the electromagnetic field]. *Annales de l'Institut Henri Poincaré*, 9 (2):13–49, 1939. CODEN AIHPA2. ISSN 0365-320x (print), 2400-4855 (electronic). URL `http://archive.numdam.org/article/AIHP_1939__9_2_13_0.pdf`.

Dirac:1939:NNQ

[Dir39b] P. A. M. Dirac. A new notation for quantum mechanics. *Mathematical proceedings of the Cambridge Philosophical Society*, 35 (3):416–418, ???? 1939. CODEN PCPSA4. ISSN 0008-1981. This paper introduces the Dirac bra and ket notation.

Dirac:1939:RBM

[Dir39c] P. A. M. Dirac. The relation between mathematics and physics. *Proceedings of the Royal Society of Edinburgh*, 59(??):122–129, ???? 1939. CODEN PRSEAE. ISSN 0370-1646. James Scott Prize Lecture, February 6, 1939.

Dirac:1940:ODM

[Dir40] P. A. M. Dirac. Obituary: Dr. M. Mathisson. *Nature*, 146(3706): 613, November 9, 1940. CODEN NATUAS. ISSN 0028-0836 (print), 1476-4687 (electronic). URL `http://www.nature.com/nature/journal/v146/n3706/pdf/146613b0.pdf`.

Dirac:1941:TSI

[Dir41] P. A. M. Dirac. The theory of the separation of isotopes by statistical methods. British Report, 1941.

Dirac:1942:EEE

[Dir42a] P. A. M. Dirac. Estimate of the efficiency of energy release with a non-scattering container. Report number MSD 4., 1942.

Dirac:1942:EUS

[Dir42b] P. A. M. Dirac. Expansion of U-sphere enclosed in a container. Report number MSD 2., 1942.

Dirac:1942:MSF

[Dir42c] P. A. M. Dirac. The motion in a self-fractionating centrifuge. Technical report, HMSO, London, UK, 1942. Report number BR 42, May 1942. Declassified 1946 as Report BDDA 7.

Dirac:1942:NMS

[Dir42d] P. A. M. Dirac. Neutron multiplication in a sphere of uniform density surrounded by a shell of non-uniform density. Report number MSD 3., 1942.

Dirac:1942:PIQ

[Dir42e] P. A. M. Dirac. The physical interpretation of quantum mechanics. *Proceedings of the Royal Society of London. Series A, Mathematical and physical sciences*, 180(980):1–40, March 18, 1942. CODEN PRLAAZ. ISSN 0080-4630. URL `http://www.jstor.org/stable/97777`. Bakerian Lecture, June 19, 1941. Russian translation in [Dir03b, Vol. II, pp. 587ff].

Dirac:1943:ARN

[Dir43a] P. A. M. Dirac. Approximate rate of neutron multiplication for a solid of arbitrary shape and uniform density. Part 1. General theory. British Declassified Document Association, number 33. Report number MSD 5, part I., 1943. URL `http://discovery.nationalarchives.gov.uk/details/r/C1978994`.

Dirac:1943:QE

[Dir43b] Paul A. M. Dirac. Quantum electrodynamics. *Communications of the Dublin Institute for Advanced Studies. Series A, Theoretical physics*, 1943(1):1–36, 1943. ISSN 0070-7414.

Dirac:1945:AQL

[Dir45a] P. A. M. Dirac. Application of quaternions to Lorentz transformations. *Proceedings of the Royal Irish Academy, Section A: Mathematical and Physical Sciences*, 50(??):261–270, 1945.

CODEN PRIAAK. ISSN 0035-8975. URL `http://www.jstor.org/stable/20520646`. Russian translation in [Dir03b, Vol. II, pp. 553ff].

Dirac:1945:ABC

[Dir45b] P. A. M. Dirac. On the analogy between classical and quantum mechanics. *Reviews of Modern Physics*, 17(2–3):195–199, April 1945. CODEN RMPHAT. ISSN 0034-6861 (print), 1538-4527 (electronic), 1539-0756. URL `http://link.aps.org/doi/10.1103/RevModPhys.17.195`.

Dirac:1945:URL

[Dir45c] P. A. M. Dirac. Unitary representations of the Lorentz group. *Proceedings of the Royal Society of London. Series A, Mathematical and physical sciences*, 183(994):284–295, February 22, 1945. CODEN PRLAAZ. ISSN 0080-4630. URL `http://www.jstor.org/stable/97721`.

Dirac:1946:DQE

[Dir46] Paul A. M. Dirac. Developments in quantum electrodynamics. *Communications of the Dublin Institute for Advanced Studies. Series A*, 1946(1):3–33, 1946. ISSN 0070-7414.

Dirac:1947:DQE

[Dir47a] P. A. M. Dirac. The difficulties in quantum electrodynamics. In ????, editor, *Report of the International Conference on Fundamental Particles and Low Temperature, July 1946*, volume 1, pages 10–14. Physical Society, London, UK, 1947. LCCN ????

Dirac:1947:PQM

[Dir47b] P. A. M. Dirac. *The Principles of Quantum Mechanics*, volume 27 of *International series of monographs on physics (Oxford, England)*. Clarendon Press, Oxford, UK, third edition, 1947. xii + 311 pp. URL `http://adsabs.harvard.edu/abs/1947pqm..book.....D`; `http://hooke.lib.cam.ac.uk/cgi-bin/bib_seek.cgi?cat=ul&bib=203807`.

Dirac:1948:MP

[Dir48a] P. A. M. Dirac. Magnetic poles. *Physics Today*, 1(7):26, November 1948. CODEN PHTOAD. ISSN 0031-9228 (print), 1945-0699 (electronic).

Dirac:1948:TPE

[Dir48b] P. A. M. Dirac. On the theory of point electrons. *Philosophical Magazine*, 39(??):31–34, 1948. CODEN PHMAA4. ISSN 0031-8086.

Dirac:1948:QTL

[Dir48c] P. A. M. Dirac. Quantum theory of localizable dynamical systems. *Physical Review (2)*, 73(8):1092–1103, May 1948. CODEN PHRVAO. ISSN 0031-899X (print), 1536-6065 (electronic). URL `http://link.aps.org/doi/10.1103/PhysRev.73.1092`.

Dirac:1948:TMP

[Dir48d] P. A. M. Dirac. The theory of magnetic poles. *Physical Review (2)*, 74(7):817–830, October 1948. CODEN PHRVAO. ISSN 0031-899X (print), 1536-6065 (electronic). URL `http://link.aps.org/doi/10.1103/PhysRev.74.817`.

Dirac:1948:QDT

[Dir48e] Paul A. M. Dirac. *Quelques déeveloppements sur la théeorie atomique: conféerence faite au Palais de la Déecouverte le 6 déecembre 1945*. Université de Paris, Paris, France, 1948. 15 pp. LCCN ????

Dirac:1949:DTF

[Dir49a] P. A. M. Dirac. The dynamical theory of fields, classical and quantum. Lecture notes, Canadian Mathematical Congress: second summer seminar held at the University of British Columbia, 1949, Vancouver, BC, Canada, 1949. 114 pp.

Dirac:1949:FRD

[Dir49b] P. A. M. Dirac. Forms of relativistic dynamics. *Reviews of Modern Physics*, 21(3):392–399, July 1949. CODEN RMPHAT. ISSN 0034-6861 (print), 1538-4527 (electronic), 1539-0756. URL `http://link.aps.org/doi/10.1103/RevModPhys.21.392`.

Dirac:1949:SQ

[Dir49c] P. A. M. Dirac. La seconde quantification. (French) [Second quantization]. *Annales de l'Institut Henri Poincaré*, 11 (1):15–47, 1949. CODEN AIHPA2. ISSN 0365-320x (print), 2400-4855 (electronic). URL `http://archive.numdam.org/article/AIHP_1949__11_1_15_0.pdf`.

Dirac:1950:FT

[Dir50a] P. A. M. Dirac. Field theory. In Sir Erneset William Titterton, editor, *Proceedings of the Harwell Nuclear Physics Conference, September 1950*, pages 114–115. Ministry of Supply, Harwell, UK, 1950. LCCN ???? URL `http://www.abaa.org/books/251337932.html`.

Dirac:1950:GHD

[Dir50b] P. A. M. Dirac. Generalized Hamiltonian dynamics. *Canadian Journal of Mathematics = Journal canadien de mathématiques*, 2(??):129–148, 1950. CODEN CJMAAB. ISSN 0008-414X (print), 1496-4279 (electronic).

Dirac:1950:NMG

[Dir50c] P. A. M. Dirac. A new meaning for gauge transformations in electrodynamics. *Il Nuovo Cimento (9)*, 7(??):925–938, 1950. CODEN NUCIAD. ISSN 0029-6341 (print), 1827-6121 (electronic).

Dirac:1951:HFF

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of particle, now called a *Majorana fermion*, which is its own antiparticle, and whose existence may have finally been confirmed by experiment seventy years later [FK08, MZF+12, Ser12]. See also comments in [ACM10]. Esposito [Esp08] reports about this paper "With amazing farsightedness Majorana suggested that the neutrino, which had just been postulated by Wolfgang Pauli and Fermi to explain puzzling features of radioactive beta decay, could be such a particle. This would make the neutrino unique among the elementary particles and, moreover, enable it to have mass. Today many experiments are still devoted to detect these peculiar properties, which include the phenomenon of neutrino oscillations: we have not yet succeeded to find a definite answer to Majorana's proposal.".

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