

CURRICULUM VITAE

Domènec Espriu

Present position		<i>Catedràtic de Física Teòrica</i> Departament d'Estructura i Constituents de la Matèria Institut de Ciències del Cosmos de la Universitat de Barcelona Universitat de Barcelona Diagonal, 647, 08028 Barcelona, Catalonia, Spain Phone: (+34) 93 402 1190 Fax: (+34) 93 402 1198 E-mail: espriu@ecm.ub.es
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Citizenship		Spain
Born		September 2, 1957, Barcelona, Catalonia, Spain
Passport number (Spain)		AAD718697, issued in Barcelona
Marital status		Single
Education	1979	<i>Llicenciat en Física</i> (B.S.), Universitat de Barcelona
	1980	<i>Tesina</i> (Master Thesis), Universitat de Barcelona
	1982	<i>Doctor en Física</i> (Ph.D.), Universitat de Barcelona, Thesis advisor: Rolf Tarrach. <i>Sobresaliente cum laude</i>
Fellowships	1980-1983	Research Fellowship (FPI), Universitat de Barcelona
	1983	Postdoctoral Fellowship (MEC). Declined
	1983-1985	Postdoctoral Fellowship (CIRIT), Department of Theoretical Physics, University of Oxford
	1985-1987	Fulbright Fellowship, Harvard University
Positions held	1987-1988	<i>Professor Titular</i> , Universitat de València
	1988-1989	<i>Professor Titular</i> , Universitat de Barcelona
	1989-1991	Fellow, Theory Division, CERN, Geneva
	1991-1997	<i>Professor Titular</i> , Universitat de Barcelona
	1997-	<i>Catedràtic</i> , Universitat de Barcelona
Visiting positions	1986	Consultant. Los Alamos National Laboratory
	1988	Visiting Professor. C.N.R.S. Centre de Physique Théorique, Luminy
	1994	<i>Cátedra América</i> . Universidad Nacional de La Plata
	2009-2010	Paid Scientific Associate, CERN, Geneva
Research interests		QCD, Chiral Lagrangians, Electroweak Theory, Lattice, Random Surfaces, Quantum gravity, Cosmology
Languages		English, French, German (basic), Spanish and Catalan (mother tongue)
Other	1979	National Award to Best Government-funded Students
	2000	Awarded the <i>Distinció de la Generalitat de Catalunya</i>
	2002	Member of Plenary ECFA
	2002,2010-11	Member of the Spanish HEP Panel
	2000-2003	Head of Department
	2004-2007	Coordinator of the National Program on Particle Physics

	2006-2007	Vicechairman of ApPEC (Astroparticle Physics European Coordination)
	2007-2009	Director of the ICCUB (Cosmos Science Institute of the Universitat de Barcelona)
	2008-	Chairman of the CRSG (Computing Resources Scrutiny Group, CERN)
Referee for		Physics Letters, Physical Review D, Mod. Phys.Lett A, Nuclear Physics B, Phys. Rev. Lett., Class. Quant. Gravity
Advisor/referee for		ANEP (Spain), NATO, EU, EPSRC (UK), FONDECYT (Chile), ANR (France), etc.

Publications

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2. A Unique Coupling Constant in QCD (with R.Tarrach), *Physics Letters*, 102B, 163 (1981)
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6. Renormalization of the Axial Anomaly operators (with R.Tarrach), *Zeitschrift für Physik C*, 16, 77 (1983)
7. Baryon Masses and Chiral Symmetry Breaking (with P.Pascual and R.Tarrach), *Nuclear Physics B*, 214, 285 (1983)
8. Renormalization of Gauge-invariant Operators and the Axial Anomaly, *Physical Review D*, 28, 349 (1983)
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10. Nucleon Magnetic Moments from QCD Sum Rules: A First Attempt (with P.Pascual), *Libro Homenaje al Prof. A.Durán*, Madrid 1983
11. $SU(3)$ Mass Differences and the Axial Coupling Constant from QCD Sum Rules (with A.Palanques), *Zeitschrift für Physik C*, 23, 97 (1984)
12. Chiral Symmetry Breaking and Static Gauge Fields, *Physics Letters*, 139B, 183 (1984)
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14. Renormalization of the Supersymmetry Current and the Superconformal Anomaly Operators, *Zeitschrift für Physik C*, 27, 603 (1985)
15. On Spontaneous Symmetry Breaking in the Abelian Higgs Model (with J.F.Wheater), *Nuclear Physics B*, 258, 101 (1985)
16. Continuum Limit on a 2-dimensional Random Lattice (with M.Gross, P.E.L.Rakow and J.F.Wheater), *Nuclear Physics B*, 265, 92 (1986)
17. Rare Decay Modes of the K-mesons in the Chiral Lagrangian (with G.D'Ambrosio), *Physics Letters B*, 175, 237 (1986)
18. Random Lattices vs. Regular Lattices (with M.Gross, P.E.L.Rakow and J.F.Wheater), *Progress of Theoretical Physics (Supp.)* 86, 304 (1986)
19. The Doubling Problem on a Random Lattice (with M.Gross, P.E.L. Rakow and J.F.Wheater), *Nuclear Physics B*, 275, 39 (1986)
20. On the Fine Structure of Strings (with F. Alonso), *Nuclear Physics B*, 283, 393 (1987)
21. Rigid Superstrings (with F. Alonso and J.I. Latorre), *Physics Letters B*, 189, 401 (1987)
22. Triangulated Random Surfaces, *Physics Letters B*, 194, 271 (1987)
23. On The Operator Formalism in Higher Genus, *Physics Letters B*, 198, 171 (1987)
24. Some MC Results for Random Surfaces with Extrinsic Curvature (with M.Baig and J.F.Wheater), *Nuclear Physics B (Proc. Supp.)* 4, 88 (1988)
25. Phase Transitions in Random Surfaces (with M.Baig and J.F.Wheater), *Nucl. Physics B[FS]* 314, 587 (1989)
26. Phase Transitions of Surfaces, *Nuclear Physics B (Proc. Supp.)* 9, 635 (1989)
27. On the c -theorem in Higher Genus (with N.E. Mavromatos), *Physics Letters B* 237, 370 (1990)
28. The QCD Effective Action at Long Distances (with E. de Rafael and J.Taron), *Nuclear Physics B* 345, 22 (1990)
29. Chiral Lagrangians as a Tool to Probe the Symmetry Breaking Sector of the Standard Model at LEP (with A.Dobado and M.J.Herrero), *Physics Letters B* 255, 405 (1991)

30. Anomalous Electroweak Processes in a Strong Magnetic Field (with P.H.Damgaard), *Physics Letters B* 256, 442 (1991)
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34. Steiner Variations on Random Surfaces (with C.Baillie and D.Johnston), *Physics Letters B* 305, 109 (1993)
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38. Some Remarks on the Matching Conditions (with J.Matias), *Physics Letters B* 341, 332 (1995)
39. Perturbative QCD, in Proceedings of the XXII *International Meeting on Fundamental Physics: The Standard Model and Beyond*, Jaca. Editions Frontieres, 1995.
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48. The Phase Diagram of the $U(2) \times U(2)$ Sigma Model and its Implications for Chiral Hierarchies (with V.Koulovassilopoulos and A.Travasset), *Phys. Rev D* 56, 6885 (1997)
49. $U(1)$ Lattice Gauge Theory and $N = 2$ Supersymmetric Yang Mills Theory (with J.Ambjorn and N.Sasakura), *Mod. Phys. Lett. A* 12, 2665 (1997)
50. The Extended Chiral Quark Model and QCD (with A.Andrianov and R.Tarrach), *Nucl. Phys. B* 533, 429 (1998)
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52. Chiral Lagrangians and the QCD String (with J.Alfaro and A.Dobado), *Phys. Lett. B* 460, 447 (1999)
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57. Vector Mesons in the Extended Chiral Quark Model (with A.Andrianov), *JHEP* 9910, 022 (1999)
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69. Wave Function and CKM renormalization, Talk given at 12th International Seminar on High-Energy Physics (QUARKS 2002), Novgorod, Russia (2002), hep-th/0210117
70. Hadronic String and Chiral Symmetry Breaking (with A.Andrianov) Talk given at 12th International Seminar on High-Energy Physics (QUARKS 2002), Novgorod, Russia (2002), hep-th/0210210
71. Hadronic Strings, Conformal Invariance and Chiral Symmetry (with J.Alfaro, L.Balart, A.Andrianov), Int. J. Mod. Phys. A 14, 2501 (2003)
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73. QCD String and Chiral Symmetry, AIP Conf. Proc. 660, 17 (2003)
74. Strings and Pions (with A. Andrianov), Theor. and Math. Phys. 135, 745 (2003)
75. The QCD Effective String, Acta Phys. Pol. B 34, 4813 (2003)
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81. Cosmological Significance of one-loop effective gravity (with T.Multamaki, E.Vagenas), Phys. Lett. B628:197-205, 2005.
82. Chiral Dynamics from the Hadronic String (with A.Andrianov, A.Prats), Int.J.Mod.Phys.A21:3337-3366,2006.
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86. Qualitative solution of QCD sum rules (with S.Afonin), JHEP 0609:047,2006
87. Matching Regge theory to the OPE. (with S. Afonin, A. Andrianov and V. Andrianov), Nucl. Phys. Proc. Suppl. 164:296-299,2007

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89. Spontaneous P-parity violation in dense baryon matter. (with S. Afonin, A. Andrianov and V. Andrianov (St. Petersburg State U.)), in *Proceedings of the 11th International Conference on Meson-Nucleon Physics and the Structure of the Nucleon (MENU 2007)*, Julich, Germany (2007). e-Print: arXiv:0710.0362 [hep-ph]
90. Secular effects on inflation from one-loop quantum gravity. (with J.A. Cabrer), Phys. Lett. B663, 361-366, 2008.
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92. Scalar mesons within QCD sum rules in the planar limit (with A. Andrianov and S. Afonin), *Workshop on Scalar Mesons and Related Topics*, AIP Conf.Proc.1030:177-182, 2008
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97. The emergence of geometry: a two-dimensional toy model (with J. Alfaro and D. Puigdomènech), Phys.Rev. D82:045018, 2010.
98. Axions and high-energy cosmic rays: Can the relic axion density be measured? (with F. Mescia and A. Renau), arXiv:1010.2589 [hep-ph]
99. Axions and Cosmic Rays (with A. Renau), *QUARKS 2010: 16th International Seminar on High Energy Physics, Kolomna, Russia, 6-12 Jun 2010*, arXiv:1010.3580 [hep-ph]