

SCIENTIFIC RECORD (2008-2012)

ASTROPARTICLE AND HIGH ENERGY PHYSICS GROUP (AHEP)

1. Main research grants funded by public agencies

GRANTS FROM THE SPANISH NATIONAL GOVERNMENT

Grant title: MULTIDARK (Multimessenger Approach for Dark Matter Detection), CSD2009-00064

Funding agency: Ministerio de Ciencia e Innovación

Period: 01/2010-12/2014

PI: Carlos Muñoz (Univ. Autónoma de Madrid)

The AHEP group is one of the nodes

Grant title: Astropartículas y Física de Altas Energías, FPA2011-22975

Funding agency: Ministerio de Economía y Competitividad

Period: 01/2012-12/2014

PI: José W. Furtado Valle

Grant title: Astropartículas y Física de Altas Energías, FPA2008-00319

Funding agency: Ministerio de Ciencia e Innovación

Period: 01/2009-07/2012

PI: José W. Furtado Valle

Grant title: Astropartículas y Física de Altas Energías, FPA2005-01269

Funding agency: Ministerio de Educación y Ciencia

Period: 10/2005-12/2008

PI: José W. Furtado Valle

GRANTS FROM THE VALENCIAN AUTONOMOUS GOVERNMENT

Grant title: Astropartículas y física de altas energías, PROMETEO/2009/091

Funding agency: Generalitat Valenciana

Period: 01/2009-12/2012

PI: José W. Furtado Valle

EUROPEAN GRANTS

Grant title: Marie Curie Initial Training Network Unification in the LHC era (PITN-GA-2009-237920)

Funding agency: Comisión Europea (VII Programa Marco)

Period: 10/2009-09/2013

Coordinator: Ignatius Antoniadis (CERN, Switzerland)

The AHEP group is one of the nodes

Grant title: Research Training Network on The Quest for unification: Theory Confronts Experiment (MRTN-CT-2004-503369)

Funding agency: Comisión Europea (Improving Human Research Potential, VI Programa Marco)

Period: 10/2004-09/2008

Coordinator: Ignatius Antoniadis (Ecole Polytechnique, Paris)

The AHEP group was one of the nodes

Grant title: Integrated Large Infrastructures for Astroparticle Science ILIAS/N6 (RII3-CT-2004-506222)

Funding agency: European Network of Theoretical Astroparticle Physics

Period: 2004-2008

Coordinator: French Commissariat à l'Énergie Atomique (CEA)

BILATERAL AGREEMENTS

Grant title: Acción integrada Hispano-Alemana HA-2007-0090

Funding agency: Ministerio de Educación y Ciencia

Period: 01/2008-12/2009

Participants: AHEP group at IFIC (Valencia) & University of Würzburg

PI: Martin Hirsch

Grant title: Neutrinos de Fuentes Astrofísicas de Alta Energía (Agreement MEC-INFN Italy)

Funding agency: Ministerio de Educación y Ciencia - MINECO
Period: annual grant 2006-2012
Participants: AHEP group at IFIC (Valencia) & INFN-University of Naples
PI: Sergio Pastor Carpi

2. PhD theses supervised by AHEP members (University of Valencia) in 2008-2012

Title: *Detailed study of relic neutrino decoupling*

Author: Teguayco Pinto Cejas

Supervisor: Sergio Pastor

25 July 2008

Title: *Supernovae as laboratories for neutrino properties*

Author: Andreu Esteban Pretel

Supervisors: Ricard Tomàs and José W.F. Valle

13 July 2009

Title: *Phenomenology of supersymmetric neutrino mass models*

Author: Avelino Vicente Montesinos

Supervisors: Martin Hirsch and José W.F. Valle

4 March 2011

Title: *Cosmological implications of some nonstandard particle physics scenarios*

Author: Urbano Lopes França

Supervisor: Sergio Pastor

3 October 2012

3. Scientific Publications (2008-2012)

The following list includes all published articles by AHEP members in international peer-review journals, as found from the database ISI Web of Science. Note that proceedings are not included.

Theoretical papers:

1. *CP violation and neutrino oscillations*

H. Nunokawa, S.J. Parke and J.W.F. Valle

Progress in Particle and Nuclear Physics **60** (2008) 338-402 [arXiv:0710.0554]

2. *Embedding A_4 into left-right symmetry: Tribimaximal neutrino mixing and fermion hierarchy*

F. Bazzocchi, S. Morisi and M. Picariello

Physics Letters B **659** (2008) 628-633 [arXiv:0710.2928]

3. *Variations on leptogenesis*

D. Aristizábal Sierra, M. Losada and E. Nardi

Physics Letters B **659** (2008) 328-335 [arXiv:0705.1489]

4. *Disentangling neutrino-nucleon cross section and high energy neutrino flux with a km^3 neutrino telescope*

E. Borriello, A. Cuoco, G. Mangano, G. Miele, S. Pastor, O. Pisanti and P.D. Serpico

Physical Review D **77** (2008) 045019 [arXiv:0711.0152]

5. *Mu-tau neutrino refraction and collective three-flavor transformations in supernovae*

A. Esteban-Pretel, S. Pastor, R. Tomàs, G.G. Raffelt and G. Sigl

Physical Review D **77** (2008) 065024 [arXiv:0712.1137]

6. *Role of dense matter in collective supernova neutrino transformations*

A. Esteban-Pretel, A. Mirizzi, S. Pastor, R. Tomàs, G.G. Raffelt, P.D. Serpico and G. Sigl

Physical Review D **78** (2008) 085012 [arXiv:0807.0659]

7. *A SUSY A_4 model for fermion masses and mixings*

F. Bazzocchi, S. Kaneko and S. Morisi

Journal of High Energy Physics **03** (2008) 063 [arXiv:0707.3032]

8. *CP observables with spin-spin correlations in chargino production*
A. Bartl, K. Hohenwarter-Sodek, T. Kernreiter, O. Kittel and M. Terwort
Nuclear Physics B **802** (2008) 77-91 [arXiv:0802.3592]
9. *Constraining non-standard neutrino-electron interactions*
J. Barranco, O.G. Miranda, C.A. Moura and J.W.F. Valle
Physical Review D **77** (2008) 093014 [arXiv:0711.0698]
10. *Polarized positrons and electrons at the linear collider*
G. Moortgat-Pick et al (includes W. Porod)
Physics Reports **460** (2008) 131-243 [arXiv: hep-ph/0507011]
11. *Lepton asymmetries and the growth of cosmological seed magnetic fields*
V.B. Semikoz and J.W.F. Valle
Journal of High Energy Physics **03** (2008) 067 [arXiv:0704.3978]
12. *Astrophysical interpretation of the medium scale clustering in the ultrahigh energy sky*
A. Cuoco, G. Miele and P.D. Serpico
Physics Letters B **660** (2008) 307-314 [arXiv:0706.2864]
13. *Fermion masses, Leptogenesis and Supersymmetric SO(10) Unification*
J.C. Romão , M.A. Tórtola, M. Hirsch and J.W.F. Valle
Physical Review D **77** (2008) 055002 [arXiv:0707.2942]
14. *High energy neutrino yields from astrophysical sources II: Magnetized sources*
M. Kachelriess, S. Ostapchenko and R. Tomàs
Physical Review D **77** (2008) 023007 [arXiv:0708.3047]
15. *Angular signatures of annihilating dark matter in the cosmic gamma-ray background*
A. Cuoco, J. Brandbyge, S. Hannestad, T. Haugbølle and G. Miele
Physical Review D **77** (2008) 123518 [arXiv:0710.4136]
16. *Leptoquarks: Neutrino masses and accelerator phenomenology*
D. Aristizábal, M. Hirsch and S.G. Kovalenko
Physical Review D **77** (2008) 055011 [arXiv:0710.5699]
17. *Probing a supersymmetric model for neutrino masses at ultra-high energy neutrino telescopes*
M. Hirsch, D.P. Roy and J.W.F. Valle
Physics Letters B **662** (2008) 185-189 [arXiv:0712.1711]
18. *Probing bilinear R-parity violating supergravity at the LHC*
F. de Campos, O.J.P. Eboli, M.B. Magro, W. Porod, D. Restrepo, M. Hirsch and J.W.F. Valle
Journal of High Energy Physics **05** (2008) 048 [arXiv:0712.2156]
19. *Spontaneous R-parity violation: Lightest neutralino decays and neutrino mixing angles at future colliders*
M. Hirsch, W. Porod and A. Vicente
Physical Review D **77** (2008) 075005 [arXiv:0802.2896]
20. *Probing minimal supergravity in type I see-saw with lepton flavor violation at the LHC*
M. Hirsch, W. Porod, J.C. Romão, J.W.F. Valle and A. Villanova del Moral
Physical Review D **78** (2008) 013006 [arXiv:0804.4072]
21. *X-ray photons from late-decaying majoron dark matter*
F. Bazzocchi, M. Lattanzi, S. Riemer-Sørensen and J.W.F. Valle
Journal of Cosmology and Astroparticle Physics **08** (2008) 013 [arXiv:0805.2372]
22. *Can OPERA help in constraining neutrino non-standard interactions?*
A. Esteban-Pretel, P. Huber and J.W.F. Valle
Physics Letters B **668** (2008) 197-201 [arXiv:0803.1790]
23. *Observables sensitive to absolute neutrino masses. II*
G.L. Fogli, E. Lisi, A. Marrone, A. Melchiorri, A. Palazzo, A.M. Rotunno, P. Serra, J. Silk and A. Slosar
Physical Review D **78** (2008) 033010 [arXiv:0805.2517]
24. *Hints of $\theta_{13}>0$ from global neutrino data analysis*

G.L. Fogli, E. Lisi, A. Marrone, A. Palazzo and A.M. Rotunno
Physical Review Letters **101** (2008) 141801 [arXiv: 0806.2649]

25. *CP violation in the SUSY seesaw: leptogenesis and low energy*
S. Davidson, J. Garayoa, F. Palorini and N. Rius
Journal of High Energy Physics **09** (2008) 053 [arXiv:0806.2832]

26. *Minimal supergravity sneutrino dark matter and inverse see-saw neutrino masses*
C. Arina, F. Bazzocchi, N. Fornengo, J.C. Romão and J.W.F. Valle
Physical Review Letters **101** (2008) 161802 [arXiv: 0806.3225]

27. *Three-flavour neutrino oscillation update*
T. Schwetz, M.A. Tórtola and J.W.F. Valle
New Journal of Physics **10** (2008) 113011 [arXiv:0808.2016]

28. *Parameter degeneracy in flavor-dependent reconstruction of supernova neutrino fluxes*
H. Minakata, H. Nunokawa, R. Tomàs and J.W.F. Valle
Journal of Cosmology and Astroparticle Physics **12** (2008) 006 [arXiv:0802.1489]

29. *Tri-bimaximal neutrino mixing and neutrinoless double beta decay*
S. Morisi, M. Hirsch and J.W.F. Valle
Physical Review D **78** (2008) 093007 [arXiv:0804.1521]

30. *Supersymmetric type II seesaw mechanism: CERN LHC and lepton flavor violating phenomenology*
M. Hirsch, S. Kaneko and W. Porod
Physical Review D **78** (2008) 093004 [arXiv:0806.3361]

31. *Collider aspects flavor physics at high Q*
T. Lari et al [includes D. Aristizábal, M. Hirsch, J.W.F. Valle and A. Villanova del Moral]
European Physical Journal C **57** (2008) 183-307 [arXiv:0801.1800]

32. *Fermion masses and mixing in models with $SO(10) \times A_4$ symmetry*
F. Bazzocchi, M. Frigerio and S. Morisi
Physical Review D **78** (2008) 116018 [arXiv:0809.3573]

33. *Measuring lepton flavour violation at LHC with long-lived slepton in the coannihilation region*
S. Kaneko, J. Sato, T. Shimomura, O. Vives and M. Yamanaka
Physical Review D **78** (2008) 116013 [arXiv:0811.0703]

34. *Embedding A_4 into $SU(3) \times U(1)$ flavor symmetry: large neutrino mixing & fermion mass hierarchy in $SO(10)$ GUT*
F. Bazzocchi, S. Morisi, M. Picariello and E. Torrente-Luján
Journal of Physics G **36** (2009) 015002 [arXiv:0802.1693]

35. *Working group report: Neutrino Physics*
S. Choubey et al [includes M. Hirsch]
Pramana - Journal of Physics **72** (2009) 269-275

36. *The neutrino mass matrix and (selected) variants of A_4*
M. Hirsch
Pramana - Journal of Physics **72** (2009) 183-193

37. *Physics at a future Neutrino Factory and super-beam facility*
A. Bandyopadhyay et al [includes J.W.F. Valle]
Reports on Progress in Physics **72** (2009) 106201 [arXiv:0710.4947]

38. *Using tau polarization to probe the stau co-annihilation region of mSUGRA model at LHC*
R.M. Godbole, M. Guchait and D.P. Roy
Physical Review D **79** (2009) 095015 [arXiv:0807.2390]

39. *Relic density of neutrinos with primordial asymmetries*
S. Pastor, T. Pinto and G.G. Raffelt
Physical Review Letters **102** (2009) 241302 [arXiv:0808.3137]

40. *Primordial Nucleosynthesis: from precision cosmology to fundamental physics*
F. Iocco, G. Mangano, G. Miele, O. Pisanti and P.D. Serpico
Physics Reports **472** (2009) 1-76 [arXiv:0809.0631]

41. *Finding the Higgs Boson through Supersymmetry*
F. de Campos, O.J.P. Eboli, M.B. Magro, D. Restrepo and J.W.F. Valle
Physical Review D **80** (2009) 015002 [arXiv:0809.1637]
42. *Radio constraints on dark matter annihilation in the galactic halo and its substructures*
E. Borriello, A. Cuoco and G. Miele
Physical Review D **79** (2009) 023518 [arXiv:0809.2990]
43. *Modelling tri-bimaximal neutrino mixing*
M. Hirsch, S. Morisi and J.W.F. Valle
Physical Review D **79** (2009) 016001 [arXiv:0810.0121]
44. *S_4 as a natural flavor symmetry for lepton mixing*
F. Bazzocchi and S. Morisi
Physical Review D **80** (2009) 096005 [arXiv:0811.0345]
45. *Neutrino masses, leptogenesis and dark matter in hybrid seesaw*
P.H. Gu, M. Hirsch, U. Sarkar and J.W.F. Valle
Physical Review D **79** (2009) 033010 [arXiv:0811.0953]
46. *Probing non-standard neutrino-electron interactions with solar and reactor neutrinos*
A. Bolaños, O.G. Miranda, A. Palazzo, M.A. Tórtola and J.W.F. Valle
Physical Review D **79** (2009) 113012 [arXiv:0812.4417]
47. *Tri-Bimaximal lepton mixing with $A_4 \times (Z_2)^3$*
S. Morisi
Physical Review D **79** (2009) 033008 [arXiv:0901.1080]
48. *Fermion masses and mixings in a S_4 based model*
F. Bazzocchi, L. Merlo and S. Morisi
Nuclear Physics B **816** (2009) 204-226 [arXiv:0901.2086]
49. *Majoron emission in muon and tau decays revisited*
M. Hirsch, A. Vicente, J. Meyer and W. Porod
Physical Review D **79** (2009) 055023 [arXiv:0902.0525]
50. *Phenomenological Consequences of See-Saw in S_4 Based Models*
F. Bazzocchi, L. Merlo and S. Morisi
Physical Review D **80** (2009) 053003 [arXiv:0902.2849]
51. *Flavour violation at the LHC: type-I versus type-II seesaw in minimal supergravity*
J.N. Esteves, M. Hirsch, W. Porod, J.C. Romão, J.W.F. Valle and A. Villanova del Moral
Journal of High Energy Physics **05** (2009) 003 [arXiv:0903.1408]
52. *LHC phenomenology of the $\mu\nu$ SSM*
A. Bartl, M. Hirsch, A. Vicente, S. Liebler and W. Porod
Journal of High Energy Physics **05** (2009) 120 [arXiv:0903.3596]
53. *Sensitivity on Earth Core and Mantle densities using Atmospheric Neutrinos*
E. Borriello, G. Mangano, A. Marotta, G. Miele, P. Migliozzi, C.A. Moura, S. Pastor, O. Pisanti and P.E. Strolin
Journal of Cosmology and Astroparticle Physics **06** (2009) 030 [arXiv:0904.0796]
54. *Impact of squark generation mixing on the search for gluinos at LHC*
A. Bartl, K. Hidaka, K. Hohenwarter-Sodek, T. Kernreiter, W. Majerotto and W. Porod
Physics Letters B **679** (2009) 260-266 [arXiv:0905.0132]
55. *A_4 -based tri-bimaximal mixing within inverse and linear seesaw schemes*
M. Hirsch, S. Morisi and J.W.F. Valle
Physics Letters B **679** (2009) 454-459 [arXiv:0905.3056]
56. *Is the baryon asymmetry of the Universe related to galactic magnetic fields?*
V.B. Semikoz, D.D. Sokoloff and J.W.F. Valle
Physical Review D **80** (2009) 083510 [arXiv:0905.3365]
57. *On the full Boltzmann equations for Leptogenesis*

J. Garayoa, S. Pastor, T. Pinto, N. Rius and O. Vives
Journal of Cosmology and Astroparticle Physics **09** (2009) 035 [arXiv:0905.4834]

58. *Constraining nonstandard neutrino-quark interactions with solar, reactor and accelerator data*
F.J. Escrivuela, O.G. Miranda, M.A. Tórtola and J.W.F. Valle
Physical Review D **80** (2009) 105009 [arXiv:0907.2630]

59. *Inverse tri-bimaximal type-III seesaw and lepton flavor violation*
D. Ibáñez, S. Morisi and J.W.F. Valle
Physical Review D **80** (2009) 053015 [arXiv:0907.3109]

60. *Dark matter in minimal supergravity with type-II seesaw*
J.N. Esteves, S. Kaneko, J.C. Romão, M. Hirsch and W. Porod
Physical Review D **80** (2009) 095003 [arXiv:0907.5090]

61. *Model independent constraints on mass-varying neutrino scenarios*
U. França, M. Lattanzi, J. Lesgourges and S. Pastor
Physical Review D **80** (2009) 083506 [arXiv:0908.0534]

62. *Confusing non-zero θ_{13} with non-standard interactions in the solar neutrino sector*
A. Palazzo and J.W.F. Valle
Physical Review D **80** (2009) 091301 [arXiv:0909.1535]

63. *An A_4 model for lepton masses and mixings*
S. Morisi and E. Peinado
Physical Review D **80** (2009) 113011 [arXiv:0910.4389]

64. *Calculable inverse-seesaw neutrino masses in supersymmetry*
F. Bazzocchi, D.G. Cerdeño, C. Muñoz and J.W.F. Valle
Physical Review D **81** (2010) 051701 [arXiv:0907.1262]

65. *Tri-Bimaximal Lepton Mixing and Leptogenesis*
D. Aristizábal Sierra, F. Bazzocchi, I. de Medeiros Varzielas, L. Merlo and S. Morisi
Nuclear Physics B **827** (2010) 34-58 [arXiv:0908.0907]

66. *Interplay between collective effects and nonstandard neutrino interactions of supernova neutrinos*
A. Esteban-Pretel, R. Tomàs and J.W.F. Valle
Physical Review D **81** (2010) 063003 [arXiv:0909.2196]

67. *Minimal Supersymmetric Inverse Seesaw: Neutrino masses, lepton flavour violation and LHC phenomenology*
M. Hirsch, T. Kernreiter, J.C. Romão and A. Villanova del Moral
Journal of High Energy Physics **05** (2010) 103 [arXiv:0910.2435]

68. *Higgs in Space!*
C.B. Jackson, G. Servant, G. Shaughnessy, T.M.P. Tait and M. Taoso
Journal of Cosmology and Astroparticle Physics **04** (2010) 004 [arXiv:0912.0004]

69. *S_4 model for quarks and leptons with maximal atmospheric angle*
S. Morisi and E. Peinado
Physical Review D **81** (2010) 085015 [arXiv:1001.2265]

70. *Spin Discrimination in Three-Body Decays*
L. Edelhäuser, W. Porod, R.K. Singh
Journal of High Energy Physics **08** (2010) 053 [arXiv:1005.3720]

71. *Effect of low mass dark matter particles on the Sun*
M. Taoso, F. Iocco, G. Meynet, G. Bertone and P. Eggenberger
Physical Review D **82** (2010) 083509 [arXiv:1005.5711]

72. *Combined analysis of KamLAND and Borexino neutrino signals from Th and U decays in the Earth's interior*
G.L. Fogli, E. Lisi, A. Palazzo and A.M. Rotunno
Physical Review D **82** (2010) 093006 [arXiv:1006.1113]

73. *Probing neutrino oscillations in supersymmetric models at the Large Hadron Collider*
F. de Campos, O.J.P. Eboli, M. Hirsch, M.B. Magro, W. Porod, D. Restrepo and J.W.F. Valle

Physical Review D **82** (2010) 075002 [arXiv:1006.5075]

74. *Discrete dark matter*

M. Hirsch, S. Morisi, E. Peinado and J.W.F. Valle

Physical Review D **82** (2010) 116003 [arXiv:1007.0871]

75. *A₄-based neutrino masses with Majoron decaying dark matter*

J.N. Esteves, F.R. Joaquim, A.S. Joshipura, J.C. Romão, M.A. Tórtola and J.W.F. Valle

Physical Review D **82** (2010) 073008 [arXiv:1007.0898]

76. *Signatures of bosonic squark decays in non-minimally flavour-violating supersymmetry*

M. Bruhnke, B. Herrmann and W. Porod

Journal of High Energy Physics **09** (2010) 006 [arXiv:1007.2100]

77. *The electroweak sector of the NMSSM at the one-loop level*

F. Staub, W. Porod and B. Herrmann

Journal of High Energy Physics **10** (2010) 040 [arXiv:1007.4049]

78. *LHC and lepton flavour violation phenomenology of a left-right extension of the MSSM*

J.N. Esteves, J.C. Romão, M. Hirsch, A. Vicente, W. Porod and F. Staub

Journal of High Energy Physics **12** (2010) 077 [arXiv:1011.0348]

79. *Fritzsch neutrino mass matrix from S₃ symmetry*

D. Meloni, S. Morisi and E. Peinado

Journal of Physics G **38** (2011) 015003 [arXiv:1005.3482]

80. *Impact of squark generation mixing on the search for squarks decaying into fermions at LHC*

A. Bartl, H. Eberl, B. Herrmann, K. Hidaka, W. Majerotto and W. Porod

Physics Letters B **698** (2011) 380-388 (arXiv:1007.5483)

81. *Flavour structure of supersymmetric SO(10) GUTs with extended matter sector*

M. Heinze and M. Malinsky

Physical Review D **83** (2011) 035018 [arXiv:1008.4813]

82. *CP-violating Supersymmetric Higgs at the Tevatron and LHC*

S.P. Das and M. Drees

Physical Review D **83** (2011) 035003 [arXiv:1010.3701]

83. *Supersymmetric type-III seesaw mechanism: Lepton flavor violating decays and dark matter*

J.N. Esteves, J.C. Romão, M. Hirsch, F. Staub and W. Porod

Physical Review D **83** (2011) 013003 [arXiv:1010.6000]

84. *Constraining the cosmic radiation density due to lepton number with Big Bang Nucleosynthesis*

G. Mangano, G. Miele, S. Pastor, O. Pisanti, S. Sarikas

Journal of Cosmology and Astroparticle Physics **03** (2011) 035 (arXiv:1011.0916)

85. *Neutrino phenomenology and stable dark matter with A₄*

D. Meloni, S. Morisi and E. Peinado

Physics Letters B **697** (2011) 339-342 (arXiv:1011.1371)

86. *Supersymmetric mass spectra and the seesaw scale*

M. Hirsch, L. Reichert and W. Porod

Journal of High Energy Physics **05** (2011) 086 (arXiv:1101.2140)

87. *Minimal Flipped SO(10) x U(1) Supersymmetric Higgs Model*

S. Bertolini, L. Di Luzio and M. Malinsky

Physical Review D **83** (2011) 035002 [arXiv:1011.1821]

88. *Phenomenology of Dark Matter from A₄ Flavor Symmetry*

M.S. Boucenna, M. Hirsch, S. Morisi, E. Peinado, M. Taoso and J.W.F. Valle

Journal of High Energy Physics **05** (2011) 037 (arXiv:1101.2874)

89. *Global neutrino data and recent reactor fluxes: status of three-flavour oscillation parameters*

T. Schwetz, M.A. Tórtola and J.W.F. Valle

New Journal of Physics **13** (2011) 063004 (arXiv:1103.0734)

90. *Global constraints on muon-neutrino non-standard interactions*

F.J. Escrihuela, O.G. Miranda, M.A. Tórtola and J.W.F. Valle
Physical Review D **83** (2011) 093002 (arXiv:1103.1366)

91. *Relating quarks and leptons without grand-unification*
S. Morisi, E. Peinado, Y. Shimizu y J.W.F. Valle
Physical Review D **84** (2011) 036003 (arXiv:1104.1633)

92. *Chern-Simons anomaly as polarization effect*
V.B. Semikoz and J.W.F. Valle
Journal of Cosmology and Astroparticle Physics **11** (2011) 048 (arXiv:1104.3106)

93. *Admixture of quasi-Dirac and Majorana neutrinos with tri-bimaximal mixing*
S. Morisi and E. Peinado
Physics Letters B **701** (2011) 451-457 (arXiv:1104.4961)

94. *Constraining nonstandard neutrino interactions with electrons*
D.V. Forero and M.M. Guzzo
Physical Review D **84** (2011) 013002

95. *Stability of dark matter from the $D_4 \times Z_2^f$ group*
D. Meloni, S. Morisi and E. Peinado
Physics Letters B **703** (2011) 281-287 (arXiv:1104.0178)

96. *Non-standard antineutrino interactions at Daya Bay*
R. Leitner, M. Malinsky, B. Roskovec and H. Zhang
Journal of High Energy Physics **12** (2011) 001 (arXiv:1105.5580)

97. *Direct and Indirect Singlet Scalar Dark Matter Detection in the Lepton-Specific two-Higgs-doublet Model*
M.S. Boucenna and S. Profumo
Physical Review D **84** (2011) 055011 (arXiv:1106.3368)

98. *Model for T2K indication with maximal θ_{23} and trimaximal θ_{12}*
S. Morisi, K.M. Patel and E. Peinado
Physical Review D **84** (2011) 053002 (arXiv:1107.0696)

99. *Soft masses in SUSY SO(10) GUTs with low intermediate scales*
V. de Romeri, M. Hirsch and M. Malinsky
Physical Review D **84** (2011) 053012 (arXiv:1107.3412)

100. *Lepton flavor violation and non-unitary lepton mixing in low-scale type-I seesaw*
D.V. Forero, S. Morisi, M.A. Tórtola and J.W.F. Valle
Journal of High Energy Physics **09** (2011) 142 (arXiv:1107.6009)

101. *Possibility of a Dark Matter Interpretation for the Excess in Isotropic Radio Emission Reported by ARCADE*
N. Fornengo, R.A. Lineros, M. Regis and M. Taoso
Physical Review Letters **107** (2011) 271302 (arXiv:1108.0569)

102. *Where we are on θ_{13} : addendum to "Global neutrino data and recent reactor fluxes: status of three-flavour oscillation parameter"*
T. Schwetz, M.A. Tórtola and J.W.F. Valle
New Journal of Physics **13** (2011) 109401 (arXiv:1108.1376)

103. *Symmetrical Parametrizations of the Lepton Mixing Matrix*
W. Rodejohann and J.W.F. Valle
Physical Review D **84** (2011) 073011 (arXiv:1108.3484)

104. *Neutrino mass from higher than d=5 effective operators in supersymmetry, and its test at the LHC*
M.B. Krauss, T. Ota, W. Porod and W. Winter
Physical Review D **84** (2011) 115023 (arXiv:1109.4636)

105. *Gravitino dark matter and neutrino masses with bilinear R-parity violation*
D. Restrepo, M. Taoso, J.W.F. Valle and O. Zapata
Physical Review D **85** (2012) 023523 (arXiv:1109.0512)

106. *Dark matter and LHC phenomenology in a left-right supersymmetric model*

J.N. Esteves, M. Hirsch, W. Porod, J.C. Romão, F. Staub and A. Vicente
Journal of High Energy Physics **01** (2012) 095 (arXiv:1109.6478)

107. *Hefty MSSM-like light Higgs in extended gauge models*
M. Hirsch, M. Malinsky, L. Reichert, W. Porod and F. Staub
Journal of High Energy Physics **02** (2012) 084 (arXiv:1110.3037)

108. *Updated BBN bounds on the cosmological lepton asymmetry for non-zero θ_{13}*
G. Mangano, G. Miele, S. Pastor, O. Pisanti and S. Sarikas
Physics Letters B **708** (2012) 1-5 (arXiv:1110.4335)

109. *Constraining neutrinoless double beta decay*
L. Doramé, D. Meloni, S. Morisi, E. Peinado and J.W.F. Valle
Nuclear Physics B **861** (2012) 259-270 (arXiv:1111.5614)

110. *Heavy Sterile Neutrinos in Tau Decays and the MiniBooNE Anomaly*
C. Dib, J.C. Helo, M. Hirsch, S. Kovalenko and I. Schmidt
Physical Review D **85** (2012) 011301 (arXiv:1110.5400)

111. *Low-energy neutrino-electron scattering as a Standard Model probe: the potential of LENA as case study*
E.A. Garcés, O.G. Miranda, M.A. Tórtola and J.W.F. Valle
Physical Review D **85** (2012) 073006 (arXiv:1112.3633)

112. *Supersymmetric mass spectra and the seesaw type-I scale*
C. Arbeláez, M. Hirsch and L. Reichert
Journal of High Energy Physics **02** (2012) 112 (arXiv:1112.4771)

113. *Enhancing $l_i \rightarrow 3l_j$ with the Z^0 -penguin*
M. Hirsch, F. Staub and A. Vicente
Physical Review D **85** (2012) 113013 (arXiv:1202.1825)

114. *New neutrino mass sum rule from the inverse seesaw mechanism*
L. Doramé, S. Morisi, E. Peinado, A.D. Rojas and J.W.F. Valle
Physical Review D **86** (2012) 056001 (arXiv:1203.0155)

115. *Flavour in heavy neutrino searches at the LHC*
J.A. Aguilar-Saavedra, F. Deppisch, O. Kittel and J.W.F. Valle
Physical Review D **85** (2012) 091301 (arXiv:1203.5998)

116. *Cosmological lepton asymmetry with a nonzero mixing angle θ_{13}*
E. Castorina, U. França, M. Lattanzi, J. Lesgourges, G. Mangano, A. Melchiorri and S. Pastor
Physical Review D **86** (2012) 023517 (arXiv:1204.2510)

117. *Predictive discrete dark matter model and neutrino oscillations*
M.S. Boucenna, S. Morisi, E. Peinado, Y. Shimuzu and J.W.F. Valle
Physical Review D **86** (2012) 073008 (arXiv:1204.4733)

118. *Systematic study of the $d = 5$ Weinberg operator at one-loop order*
F. Bonnet, M. Hirsch, T. Ota and W. Winter
Journal of High Energy Physics **07** (2012) 153 (arXiv:1204.5862)

119. *Lepton asymmetries and primordial hypermagnetic helicity evolution*
V.B. Semikoz, D.D. Sokoloff and J.W.F. Valle
Journal of Cosmology and Astroparticle Physics **06** (2012) 008 (arXiv:1205.3607)

120. *Global status of neutrino oscillation parameters after Neutrino-2012*
D.V. Forero, M.A. Tórtola and J.W.F. Valle
Physical Review D **86** (2012) 073012 (arXiv:1205.4018)

121. *Heavy neutrinos and lepton flavor violation in left-right symmetric models at the LHC*
S.P. Das, F.F. Deppisch, O. Kittel and J.W.F. Valle
Physical Review D **86** (2012) 055006 (arXiv:1206.0256)

122. *Bilarge neutrino mixing and the Cabibbo angle*
M.S. Boucenna, S. Morisi, M.A. Tórtola and J.W.F. Valle
Physical Review D **86** (2012) 051301 (arXiv:1206.2555)

123. *Quark mixing in the discrete dark matter model*
 R. de Adelhart Toorop, F. Bazzocchi and S. Morisi
 Nuclear Physics B **856** (2012) 670-681 (arXiv:1104.5676)
124. *Conservative upper limits on WIMP annihilation cross section from Fermi-LAT gamma-rays*
 F. Calore, V. de Romeri and F. Donato
 Physical Review D **85** (2012) 023004 (arXiv:1105.4230)
125. *Radio data and synchrotron emission in consistent cosmic ray models*
 T. Bringmann, F. Donato and R.A. Lineros
 Journal of Cosmology and Astroparticle Physics **01** (2012) 049 (arXiv:1106.4821)
126. *Running soft parameters in SUSY models with multiple U(1) gauge factors*
 R. Fonseca, M. Malinsky, W. Porod and F. Staub
 Nuclear Physics B **854** (2012) 28-53 (arXiv:1107.2670)
127. *The reactor mixing angle and CP violation with two texture zeros in the light of T2K*
 P.O. Ludl, S. Morisi and E. Peinado
 Nuclear Physics B **857** (2012) 411-423 (arXiv:1109.3393)
128. *Fermion masses and mixing with tri-bimaximal in SO(10) with type-I seesaw*
 G. Blankenburg and S. Morisi
 Journal of High Energy Physics **01** (2012) 016 (arXiv:1109.3396)
129. *Galactic synchrotron emission from WIMPs at radio frequencies*
 N. Fornengo, R.A. Lineros, M. Regis and M. Taoso
 Journal of Cosmology and Astroparticle Physics **01** (2012) 005 (arXiv:1110.4337)
130. *Cosmological Radio Emission induced by WIMP Dark Matter*
 N. Fornengo, R.A. Lineros, M. Regis and M. Taoso
 Journal of Cosmology and Astroparticle Physics **03** (2012) 033 (arXiv:1112.4517)
131. *Main sequence stars with asymmetric dark matter*
 F. Iocco, M. Taoso, F. Leclercq and G. Meynet
 Physical Review Letters **108** (2012) 061301 (arXiv:1201.5387)
132. *Split neutrinos, two Majorana and one Dirac, and implications for leptogenesis, dark matter, and inflation*
 A. Mazumdar and S. Morisi
 Physical Review D **86** (2012) 045031 (arXiv:1201.6189)
133. *Seesaw Scale in the Minimal Renormalizable SO(10) Grand Unification*
 S. Bertolini, L. Di Luzio and M. Malinsky
 Physical Review D **85** (2012) 095014 (arXiv:1202.0807)
134. *Predicting leptonic CP violation in the light of the Daya Bay result on θ_{13}*
 D. Meloni, S. Morisi and E. Peinado
 European Physical Journal C **72** (2012) 2160 (arXiv:1203.2535)
135. *Linear collider test of a neutrinoless double beta decay mechanism in left-right symmetric theories*
 J. Barry, L. Doramé and W. Rodejohann
 European Physical Journal C **72** (2012) 2023 (arXiv:1203.3365)
136. *Probing neutralino properties in minimal supergravity with bilinear R-parity violation*
 F. de Campos, O.J.P. Éboli, M.B. Magro, W. Porod, D. Restrepo, S.P. Das, M. Hirsch and J.W.F. Valle
 Physical Review D **86** (2012) 075001 (arXiv:1206.3605)

Papers within the Pierre Auger Collaboration:

137. *Correlation of the highest-energy cosmic rays with the positions of nearby active galactic nuclei*
 The Pierre Auger Collaboration [includes S. Pastor and T. Pinto]
 Astroparticle Physics **29** (2008) 188-204 [arXiv:0712.2843]
138. *Upper limit on the cosmic-ray photon flux above 10^{19} eV using the surface detector of the Pierre Auger Observatory*
 The Pierre Auger Collaboration [includes S. Pastor and T. Pinto]

Astroparticle Physics **29** (2008) 243-256 [arXiv:0712.1147]

139. *Upper limit on the diffuse flux of UHE tau neutrinos from the Pierre Auger Observatory*
The Pierre Auger Collaboration [includes S. Pastor and T. Pinto]
Physical Review Letters **100** (2008) 211101 [arXiv: 0712.1909]

140. *Observation of the suppression of the flux of cosmic rays above 4×10^{19} eV*
The Pierre Auger Collaboration [includes S. Pastor and T. Pinto]
Physical Review Letters **101** (2008) 061101 [arXiv: 0806.4302]

141. *Atmospheric effects on extensive air showers observed with the surface detector of the Pierre Auger observatory*
The Pierre Auger Collaboration [includes S. Pastor and T. Pinto]
Astroparticle Physics **32** (2009) 89-99 [arXiv:0906.5497]

142. *Upper limit on the cosmic-ray photon fraction at EeV energies from the Pierre Auger Observatory*
The Pierre Auger Collaboration [includes S. Pastor and T. Pinto]
Astroparticle Physics **31** (2009) 399-406 [arXiv:0903.1127]

143. *Limit on the diffuse flux of ultra-high energy tau neutrinos with the surface detector of the Pierre Auger Observatory*
The Pierre Auger Collaboration [includes S. Pastor and T. Pinto]
Physical Review D **79** (2009) 102001 [arXiv:0903.3385]

144. *The Fluorescence Detector of the Pierre Auger Observatory*
The Pierre Auger Collaboration [includes S. Pastor]
Nuclear Instruments and Methods in Physics Research A **620** (2010) 227-251 [arXiv:0907.4282]

145. *Trigger and aperture of the surface detector array of the Pierre Auger Observatory*
The Pierre Auger Collaboration [includes S. Pastor]
Nuclear Instruments and Methods in Physics Research A **613** (2010) 29-39

146. *A study of the effect of molecular and aerosol conditions in the atmosphere on air fluorescence measurements at the Pierre Auger Observatory*
The Pierre Auger Collaboration [includes S. Pastor]
Astroparticle Physics **33** (2010) 108-129 [arXiv:1002.0366]

147. *Measurement of the Depth of Maximum of Extensive Air Showers above 10^{18} eV*
The Pierre Auger Collaboration [includes S. Pastor]
Physical Review Letters **104** (2010) 091101 [arXiv:1002.0699]

148. *Measurement of the energy spectrum of cosmic rays above 10^{18} eV using the Pierre Auger Observatory*
The Pierre Auger Collaboration [includes S. Pastor]
Physics Letters B **685** (2010) 239-246 [arXiv:1002.1975]

149. *Update on the correlation of the highest energy cosmic rays with nearby extragalactic matter*
The Pierre Auger Collaboration [includes S. Pastor]
Astroparticle Physics **34** (2010) 314-326 [arXiv:1009.1855]

150. *The exposure of the hybrid detector of the Pierre Auger Observatory*
The Pierre Auger Collaboration [includes S. Pastor]
Astroparticle Physics **34** (2011) 368-381 [arXiv:1011.1821]

151. *Advanced functionality for radio analysis in the Offline software framework of the Pierre Auger Observatory*
The Pierre Auger Collaboration [includes S. Pastor]
Nuclear Instruments and Methods in Physics Research A **635** (2011) 92-102 [arXiv:1011.4473]

152. *Search for first harmonic modulation in the right ascension distribution of cosmic rays detected at the Pierre Auger Observatory*
The Pierre Auger Collaboration [incluye a S. Pastor]
Astroparticle Physics **34** (2011) 627-639 (arXiv:1103.2721)

153. *Anisotropy and chemical composition of ultra-high energy cosmic rays using arrival directions measured by the Pierre Auger Observatory*
The Pierre Auger Collaboration [incluye a S. Pastor]

Journal of Cosmology and Astroparticle Physics **06** (2011) 022 (arXiv:1106.3048)

154. *The Pierre Auger Observatory scaler mode for the study of solar activity modulation of galactic cosmic rays*

The Pierre Auger Collaboration [incluye a S. Pastor]

Journal of Instrumentation **6** (2011) P01003

155. *The effect of the geomagnetic field on cosmic ray energy estimates and large scale anisotropy searches on data from the Pierre Auger Observatory*

The Pierre Auger Collaboration [incluye a S. Pastor]

Journal of Cosmology and Astroparticle Physics **11** (2011) 022 (arXiv:1111.7122)

156. *Search for ultrahigh energy neutrinos in highly inclined events at the Pierre Auger Observatory*

The Pierre Auger Collaboration [incluye a S. Pastor]

Physical Review D **84** (2011) 122005 (arXiv:1202.1493)

157. *Search for signatures of magnetically-induced alignment in the arrival directions measured by the Pierre Auger Observatory*

The Pierre Auger Collaboration [includes S. Pastor]

Astroparticle Physics **35** (2012) 354-361 (arXiv:1111.2472)

158. *Description of atmospheric conditions at the Pierre Auger Observatory using the Global Data Assimilation System (GDAS)*

The Pierre Auger Collaboration [includes S. Pastor]

Astroparticle Physics **35** (2012) 591-607 (arXiv:1201.2276)

159. *A search for anisotropy in the arrival directions of ultra high energy cosmic rays recorded at the Pierre Auger Observatory*

The Pierre Auger Collaboration [includes S. Pastor]

Journal of Cosmology and Astroparticle Physics **04** (2012) 040 (arXiv:1210.3602)

160. *Measurement of the Proton-Air Cross Section at root(s) = 57 TeV with the Pierre Auger Observatory*

The Pierre Auger Collaboration [includes S. Pastor]

Physical Review Letters **109** (2012) 062002 (arXiv:1208.1520)

161. *Search for point-like sources of ultra-high energy neutrinos at the Pierre Auger Observatory and improved limit on the diffuse flux of tau neutrinos*

The Pierre Auger Collaboration [includes S. Pastor]

Astrophysical Journal Letters **755** (2012) L4 (arXiv:1210.3143)

162. *The rapid atmospheric monitoring system of the Pierre Auger Observatory*

The Pierre Auger Collaboration [includes S. Pastor]

Journal of Instrumentation **7** (2012) P09001 (arXiv:1208.1675)

163. *Antennas for the detection of radio emission pulses from cosmic-ray induced air showers at the Pierre Auger Observatory*

The Pierre Auger Collaboration [includes S. Pastor]

Journal of Instrumentation **7** (2012) P10011 (arXiv:1209.3840)

4. Contributions to conferences and workshops

AHEP members present their results in the main international conferences and workshop of the field, often as invited review speakers. Here we list a selection of AHEP talks and posters during the period 2008-2012, including the contribution to the proceedings, if any.

Higgs and soft SUSY masses in models with extended gauge groups

M. Hirsch

4th International Workshop on High Energy Physics in the LHC Era
Valparaíso (Chile), 4-10 January 2012

Towards to minimal SO(10) GUT

S. Bertolini, L. Di Luzio and M. Malinsky

International Workshop on Grand Unified Theories (GUT 2012)

Kyoto (Japan), 15-17 March 2012

AIP conference Proceedings **1467** (2012) 37-44

BBN bounds on the cosmological lepton asymmetry for non-zero θ_{13}

S. Pastor
6th MULTIDARK Consolider Workshop & RENATA meeting
Canfranc, 12-15 April 2012

Radiowaves and Dark Matter

R.A. Lineros
6th MULTIDARK Consolider Workshop & RENATA meeting
Canfranc, 12-15 April 2012

Low-energy imprints of extended gauge symmetries

M. Malinsky
Phenomenology symposium: LHC Lights the Way to New Physics (PHENO '12)
Pittsburgh (USA), 7-9 May 2012

Lepton flavour violation and neutrinos

M. Hirsch
Rencontres de Physique des Particules (RPP-2012)
Montpellier (France), 14-16 May 2012

Lepton Flavour Violation

M. Hirsch
XL International Meeting on Fundamental Physics (Flavour mini-workshop)
Banasque, 24 May – 3 June 2012

Neutrino physics (theory)

M.A. Tórtola
XL International Meeting on Fundamental Physics
Banasque, 24 May – 3 June 2012

Extended $U(1)_{B-L} \times U(1)_R$ group: Higgs and SUSY spectrum

L. Reichert
From the Planck scale to the electroweak scale (PLANCK 2012)
Warsaw (Poland), 24 May – 3 June 2012

Light Dark Matter in the Lepton-Specific two-Higgs-doublet Model

S. Boucenna
From the Planck scale to the electroweak scale (PLANCK 2012)
Warsaw (Poland), 24 May – 3 June 2012

Discrete dark matter

E. Peinado
18th Int. Symposium on Particles, Strings and Cosmology (PASCOS 2012)
Mérida (Mexico), 3-8 June 2012

Neutrino masses and mixing: evidences and implications

J.W.F. Valle
18th Int. Symposium on Particles, Strings and Cosmology (PASCOS 2012)
Mérida (Mexico), 3-8 June 2012

RH sneutrino Dark Matter with non-standard Seesaws

V. De Romeri
18th Int. Symposium on Particles, Strings and Cosmology (PASCOS 2012)
Mérida (Mexico), 3-8 June 2012

Constraining neutrinoless double beta decay

L. Doramé
18th Int. Symposium on Particles, Strings and Cosmology (PASCOS 2012)
Mérida (Mexico), 3-8 June 2012

Neutrino searches at the Pierre Auger Observatory

S. Pastor (on behalf of the Pierre Auger Collaboration)
XXV Int. Conference on Neutrino Physics and Astrophysics (Neutrino 2012)
Kyoto (Japan), 3-9 June 2012

Cosmological lepton asymmetry with a nonzero mixing angle θ_{13} (póster)

U. França

XXV Int. Conference on Neutrino Physics and Astrophysics (Neutrino 2012)
Kyoto (Japan), 3-9 June 2012

Status of global neutrino fits

M.A. Tórtola
4th EURONu Annual Meeting
Paris (France), 12-15 June 2012

Cosmological lepton asymmetry with a nonzero mixing angle θ_{13}

S. Pastor
Galileo Institute Workshop: What is nu ? From new experimental neutrino results to a deeper
understanding of theoretical physics and cosmology
Florence (Italy), 25-29 June 2012

Neutrino Masses and Mixing: Evidences and Implications

J.W.F. Valle
Workshop on Flavor Symmetries and consequences in Accelerators and Cosmology (FLASY 12)
Dortmund (Germany), 30 June – 4 July 2012

Dark Matter and Flavor Symmetry

S. Morisi
Workshop on Flavor Symmetries and consequences in Accelerators and Cosmology (FLASY 12)
Dortmund (Germany), 30 June – 4 July 2012

Phenomenological aspects of discrete Dark Matter

S. Boucenna
Workshop on Flavor Symmetries and consequences in Accelerators and Cosmology (FLASY 12)
Dortmund (Germany), 30 June – 4 July 2012

Pathways to small neutrino masses: The one-loop story

M. Hirsch
Workshop on Flavor Symmetries and consequences in Accelerators and Cosmology (FLASY 12)
Dortmund (Germany), 30 June – 4 July 2012

2012 Status of Neutrino Oscillations: θ_{13} and Beyond

M.A. Tórtola
Workshop on Flavor Symmetries and consequences in Accelerators and Cosmology (FLASY 12)
Dortmund (Germany), 30 June – 4 July 2012

Reactor mixing angle and flavor symmetries

E. Peinado
Workshop on Flavor Symmetries and consequences in Accelerators and Cosmology (FLASY 12)
Dortmund (Germany), 30 June – 4 July 2012

Structure and prospects of the simplest SO(10) GUTs

M. Malinsky
CETUP Workshop on Dark Matter, Grand Unification and Neutrinos
Lead (USA), 19-21 July 2012

Absolute neutrino mass scale from flavor symmetries

S. Morisi
7th Neutrino Oscillation Workshop (NOW 2012)
Conca Specchiulla, Otranto (Italy), 9-16 September 2012

Dark matter stability from discrete flavor symmetries

E. Peinado
Dual CP Institute of High Energy Physics-Workshop
Colima (México), 4-14 January 2011

Feebly annihilating DM on Stars

M. Taoso
4th MULTIDARK Consolider Workshop
IFT Madrid, 4-6 April 2011

Dark matter stability from non-Abelian discrete flavor symmetries

E. Peinado
4th MULTIDARK Consolider Workshop

IFT Madrid, 4-6 April 2011

Cosmic rays of electrons: direct and indirect observations and their implications for Dark Matter searches

R.A. Lineros

4th MULTIDARK Consolider Workshop

IFT Madrid, 4-6 April 2011

Aspects of SO(10) unification with extended matter sector

M. Malinsky

Workshop on the Role of Heavy Fermions in Fundamental Physics

Portoroz (Slovenia), 11-14 April 2011

Neutrino physics

J.W.F. Valle

PLANCK 2011 - From the Planck Scale to the ElectroWeak Scale

Lisbon (Portugal), 30 May - 3 June 2011

A₄-based neutrino masses with Majoron decaying dark matter

M.A. Tórtola

PLANCK 2011 - From the Planck Scale to the ElectroWeak Scale

Lisbon (Portugal), 30 May - 3 June 2011

Stability of the dark matter from non-abelian discrete flavor symmetry

S. Morisi

PLANCK 2011 - From the Planck Scale to the ElectroWeak Scale

Lisbon (Portugal), 30 May - 3 June 2011

Conservative upper limits on WIMP annihilation cross section from Fermi extragalactic gamma rays

V. de Romeri

PLANCK 2011 - From the Planck Scale to the ElectroWeak Scale

Lisbon (Portugal), 30 May - 3 June 2011

Renormalizable SUSY SO(10) breakdown without large representations?

M. Malinsky

PLANCK 2011 - From the Planck Scale to the ElectroWeak Scale

Lisbon (Portugal), 30 May - 3 June 2011

Supersymmetric mass spectra and the seesaw scale

L. Reichert

PLANCK 2011 - From the Planck Scale to the ElectroWeak Scale

Lisbon (Portugal), 30 May - 3 June 2011

Neutrinos and the universe

J.W.F. Valle

2-Day Meeting International Doctorate on AstroParticle Physics, IDAPP

Laboratoire APC, Paris (France), 20-22 June 2011

Dark Matter from A₄ Flavor Symmetry

M.S. Boucenna

Workshop on Flavor Symmetries and consequences in Accelerators and Cosmology (FLASY)

Valencia, 11-14 July 2011

Flavour aspects of Grand Unified Theories

M. Malinsky

Workshop on Flavor Symmetries and consequences in Accelerators and Cosmology (FLASY)

Valencia, 11-14 July 2011

News on indirect and direct dark matter searches

M. Taoso

Workshop on Flavor Symmetries and consequences in Accelerators and Cosmology (FLASY)

Valencia, 11-14 July 2011

Status of three-flavour oscillation parameters from global neutrino data

M.A. Tórtola

Workshop on Flavor Symmetries and consequences in Accelerators and Cosmology (FLASY)

Valencia, 11-14 July 2011

Unitarity Violation in Low Scale Seesaw Schemes

D. Vanegas Forero

International Neutrino Summer School 2011

Geneve (Switzerland), 18-30 July 2011

Probing Dark Matter with the Global 21-cm Signal

U. França

2011 CINVESTAV Advanced Summer School

México DF (Mexico), 25-29 July 2011

Neutrinoless double-beta decay

M. Hirsch

Research training group Workshop Graduiertenkolleg GRK1147 (ITPA Würzburg)

Samerberg (Germany), 2-5 August 2011

Soft masses in SUSY SO(10) GUTs with low intermediate scales

V. de Romeri

1st School of ITN: Unification in the LHC Era

Corfu (Greece), 4-15 September 2011

Dark matter stability from non-Abelian discrete flavor symmetries (póster)

E. Peinado

12th Int. conference on Topics in Astroparticle and Underground Physics (TAUP 2011)

Munich (Germany), 5-9 September 2011

Journal of Physics: Conference Series **375** (2012) 012043

Status of neutrino-quark NSI parameters

F.J. Escrivuela

12th Int. conference on Topics in Astroparticle and Underground Physics (TAUP 2011)

Munich (Germany), 5-9 September 2011

Journal of Physics: Conference Series **375** (2012) 042046

Galactic synchrotron emission from astrophysical electrons

R.A. Lineros

12th Int. conference on Topics in Astroparticle and Underground Physics (TAUP 2011)

Munich (Germany), 5-9 September 2011

Journal of Physics: Conference Series **375** (2012) 012037

Dark matter synchrotron emission and radio observations

M. Taoso

12th Int. conference on Topics in Astroparticle and Underground Physics (TAUP 2011)

Munich (Germany), 5-9 September 2011

Journal of Physics: Conference Series **375** (2012) 012036

Constraining the cosmic radiation density due to lepton number with BBN

S. Pastor and S. Sarikas

12th Int. conference on Topics in Astroparticle and Underground Physics (TAUP 2011)

Munich (Alemania), 5-9 Septiembre 2011

Journal of Physics: Conference Series **375** (2012) 032004

Soft Masses in SUSY SO(10) GUTs with Sliding Intermediate Scales

M. Malinsky

3rd Baryon and Lepton Number Violation Workshop (BLV 2011)

Gatlinburg, Tennessee (USA), 22-24 Septiembre 2011

Neutrinos and dark matter

J.W.F. Valle

7th International workshop Dark Side of the Universe (DSU 2011)

KITPC, Beijing (China), 26-30 Septiembre 2011

Journal of Physics: Conference Series **384** (2012) 012022

Beyond the Standard Model and double-beta decay

M. Hirsch

Half Day IoP Meeting: Neutrinoless Double Beta Decay

University College, Londres (Reino Unido), 12 Octubre 2011

Neutrino mass models at LHC

M. Hirsch
3rd International Workshop on High Energy Physics in the LHC era
Valparaíso (Chile), January 2010

Relic density of neutrinos with primordial asymmetries
S. Pastor
Joint Indo-German Supernova Astroparticle Physics Workshop (JIGSAW 2010)
Mumbai (India), February 2010

Higgs in Space
M. Taoso
Multi Cube Workshop on dark Matter
Padova (Italy), March 2010

Dark Matter effects in the Sun
M. Taoso
2nd MULTIDARK Consolider Workshop
Santander, June 2010

Limits on the diffuse flux of ultra-high energy neutrinos using the Pierre Auger Observatory
S. Pastor (on behalf of the Pierre Auger Collaboration)
4th Int. Workshop on Acoustic and Radio EeV Neutrino detection Activities (ARENA 2010)
Nantes (France), July 2010
Nuclear Instruments and Methods in Physics Research A **662** (2012) S113-S117

LHC phenomenology of supersymmetric models beyond the MSSM
W. Porod
16th Int. Symposium on Particles Strings and Cosmology (PASCOS 2010)
Valencia, July 2010
Journal of Physics: Conference Series **259** (2010) 012002

CP-violating Higgs at Tevatron and LHC
S.P. Das and M. Drees
16th Int. Symposium on Particles, Strings and Cosmology (PASCOS 2010)
Valencia, July 2010
Journal of Physics: Conference Series **259** (2010) 012071

Lepton flavor violation in SUSY left-right symmetric theories
A. Vicente
16th Int. Symposium on Particles, Strings and Cosmology (PASCOS 2010)
Valencia, July 2010
Journal of Physics: Conference Series **259** (2010) 012065

A₄ model for neutrino masses and mixings
E. Peinado
16th Int. Symposium on Particles, Strings and Cosmology (PASCOS 2010)
Valencia, July 2010
Journal of Physics: Conference Series **259** (2010) 012093

Dark Matter with non-Abelian symmetry
S. Morisi
16th Int. Symposium on Particles, Strings and Cosmology (PASCOS 2010)
Valencia, July 2010
Journal of Physics: Conference Series **259** (2010) 012094

Effect of low mass dark matter particles on the Sun
M. Taoso
16th Int. Symposium on Particles, Strings and Cosmology (PASCOS 2010)
Valencia, July 2010
Journal of Physics: Conference Series **259** (2010) 012102

Constraining nonstandard neutrino-quark interactions with solar, reactor, and accelerator data
F.J. Escrihuela, O.G. Miranda, M.A. Tórtola and J.W.F. Valle
16th Int. Symposium on Particles, Strings and Cosmology (PASCOS 2010)
Valencia, July 2010
Journal of Physics: Conference Series **259** (2010) 012091

Effects of low mass DM particles on the Sun

M. Taoso
8th Int. Workshop on the Identification of Dark Matter, IDM 2010
Montpellier (France), July 2010

Relating quarks and lepton mass without unification

E. Peinado
18th Int. Conference on Supersymmetry & Unification of Fundamental Interactions (SUSY 2010)
Bonn (Germany), August 2010

Prospects for observing CP-violating Higgs at Tevatron and LHC

S.P. Das
18th Int. Conference on Supersymmetry & Unification of Fundamental Interactions (SUSY 2010)
Bonn (Germany), August 2010

Lepton flavor violation in SUSY left-right symmetric theories

A. Vicente
18th Int. Conference on Supersymmetry & Unification of Fundamental Interactions (SUSY 2010)
Bonn (Germany), August 2010

Neutrino Physics Theory: probing oscillations at the LHC

J.W.F. Valle
XXX Int. Symposium on Physics in Collision (PIC 2010)
Karlsruhe (Germany), September 2010

Charged lepton flavor violation

M. Hirsch
6th Neutrino Oscillation Workshop (NOW 2010)
Conca Specchiulla, Otranto (Italy), September 2010
Nuclear Physics B (Proceedings Supplements) **217** (2011) 318-323

Models for neutrino mass with discrete symmetries

S. Morisi
6th Neutrino Oscillation Workshop (NOW 2010)
Conca Specchiulla, Otranto (Italy), September 2010
Nuclear Physics B (Proceedings Supplements) **217** (2011) 331-333

Neutrinoless double beta decay: Standard and exotic mechanisms and their tests

M. Hirsch
Theory Workshop: Neutrino Theory, Models, and Experimental perspectives (Nu TheME)
CERN, Geneva (Switzerland), September 2010

Some topics on neutrino cosmology

S. Pastor
Theory Workshop: Neutrino Theory, Models, and Experimental perspectives (Nu TheME)
CERN, Geneva (Switzerland), September 2010

Neutrino Physics Theory: probing oscillations at the LHC

J.W.F. Valle
XXX Int. Symposium on Physics in Collision (PIC 2010)
Karlsruhe (Germany), September 2010

Current theoretical Status of neutrino masses and mixing

J.W.F. Valle
12th Int. Workshop on Neutrino Factories, Super beams and Beta Beams (NuFact 2010)
Mumbai (India), October 2010

Neutrino oscillations

J.W.F. Valle
Mini Workshop on Neutrinos
IPMU Tokyo (Japan), November 2010

Neutralino decay length measurement consistent with neutrino masses and mixing in bilinear R-parity violating MSSM at LHC

S.P. Das
HEPTools final meeting
Granada, November 2010

Bilinear RPV and LHC at 7 TeV

S.P. Das

II CPAN Days

Valencia, November 2010

Neutrino mass and dark matter candidates

J.W.F. Valle

Workshop on High-energy phenomena in Galaxy Clusters and Dark Matter Searches

Instituto de Astrofísica de Andalucía, Granada, February 2009

A model for tri-bimaximal neutrino mixing and a dark matter candidate

S. Morisi

Workshop on High-energy phenomena in Galaxy Clusters and Dark Matter Searches

Instituto de Astrofísica de Andalucía, Granada, February 2009

Status of sterile neutrino as a dark matter candidate

A. Palazzo

Workshop on High-energy phenomena in Galaxy Clusters and Dark Matter Searches

Instituto de Astrofísica de Andalucía, Granada, February 2009

Neutrinos in the Early Universe

S. Pastor

Colloquium: Physics of the Standard Model of the Universe: theory and observations

Colegio de España, Paris (France), June 2009

Probing the origin of neutrino mass at the LHC

J.W.F. Valle

Int. Workshop on Beyond the Standard Model Physics and LHC Signatures (BSM-LHC)

Boston (USA), June 2009

Neutrino mass in supersymmetry

J.W.F. Valle

17th Int. Conf. on Supersymmetry and the Unification of Fundamental Interactions (SUSY 2009)

Boston (USA), June 2009

AIP Conference Proceedings **1200** (2010) 112-121

Probing θ_{13} with global neutrino data analysis

A. Palazzo

XXIèmes Rencontres de Blois: Windows on the Universe

Blois (France), June 2009

Progress in the understanding of neutrino properties

J.W.F. Valle

11th Int. conference on Topics in Astroparticle and Underground Physics (TAUP 2009)

Roma (Italy), July 2009

Journal of Physics: Conference Series **203** (2010) 012009

Relic density of neutrinos with primordial asymmetries

S. Pastor

11th Int. conference on Topics in Astroparticle and Underground Physics (TAUP 2009)

Roma (Italy), July 2009

Journal of Physics: Conference Series **203** (2010) 012053

Probing θ_{13} with global neutrino data analysis

A. Palazzo

11th Int. conference on Topics in Astroparticle and Underground Physics (TAUP 2009)

Roma (Italy), July 2009

Journal of Physics: Conference Series **203** (2010) 012103

Probing the Majorana nature of neutrinos by the neutrinoless double beta decay

S. Morisi

11th Int. conference on Topics in Astroparticle and Underground Physics (TAUP 2009)

Roma (Italy), July 2009

Journal of Physics: Conference Series **203** (2010) 012060

Neutrino mass models and LHC

M. Hirsch
Summer Institute 2009 on Particle Physics Phenomenology
Fujiyoshida (Japan), August 2009

Status of Neutrino Theory
J.W.F. Valle
XXIV Int. Symposium on Lepton Photon interactions at high energies (Lepton Photon 2009)
Hamburgo (Germany), August 2009

Neutrino masses in R-parity violating SUSY (póster)
A. Vicente
XXXVII SLAC Summer Institute (SSI 2009)
Menlo Park (USA), August 2009

Testing neutrino mass models at LHC
M. Hirsch
22nd Int. Workshop on Weak Interactions and Neutrinos (WIN 2009)
Perugia (Italy), September 2009

Neutrinos, dark matter and leptogenesis
J.W.F. Valle
Theoretical miniWorkshop on Dark Matters
Madrid, September 2009

Cosmological neutrinos: theory
S. Pastor
5th Int. Workshop on Low Energy Neutrino Physics (LowNu 2009)
Reims (France), October 2009

Oscillation parameters, CP violation and NSI
J.W.F. Valle
5th Int. Workshop on Low Energy Neutrino Physics (LowNu 2009)
Reims (France), October 2009

Low energy seesaw and lepton flavor violation
S. Morisi
Int. Conference on Neutrino Physics in the LHC Era
Luxor (Egypt), November 2009

Standard and non-standard neutrino properties: New clues from the solar neutrino sector
A. Palazzo
Int. Conference on Neutrino Physics in the LHC Era
Luxor (Egypt), November 2009

LFV in spontaneous R-parity violating SUSY
A. Vicente
Kick-off Workshop of the Working Group on "Neutrino masses and Lepton flavor violation at the LHC"
Würzburg (Germany), November 2009

Flavor symmetries and neutrino mass models
M. Hirsch
Tenth Workshop on High Energy Physics Phenomenology (WHEPP-X)
Chennai (India), January 2008

Neutrinos in Cosmology
J.W.F. Valle
Physics of the Universe: Implications of the Recent Observations
Madrid, May 2008

Neutrino overview
J.W.F. Valle
Physics of Massive Neutrinos: Annual Meeting of ENTApP N6/WP1
Milos (Greece), May 2008

Neutrino Oscillations and Grand Unification: an SO(10)xA4 Model
S. Morisi
Physics of Massive Neutrinos: Annual Meeting of ENTApP N6/WP1

Milos (Greece), May 2008

Lepton Flavour Violation in SUGRA with See-Saw Type II

S. Kaneko

Physics of Massive Neutrinos: Annual Meeting of ENTApP N6/WP1

Milos (Greece), May 2008

Neutrinos: where to from now?

J.W.F. Valle

4th Annual Meeting of the European Network on Theoretical Astroparticle Physics (ENTApP) ILIAS/N6

Hamburgo (Germany), March 2008

Neutrino Physics and Grand Unification

S. Morisi

Incontri di Fisica delle Alte Energie (IFAE 2008)

Bologna (Italy), March 2008

Nuovo Cimento B **123** (2008) 886-888

Decoherence in supernova neutrino transformations suppressed by deleptonization

A. Esteban-Pretel

XXIII International Conference on Neutrino Physics and Astrophysics

Christchurch (New Zealand), May 2008

Journal of Physics: Conference Series **136** (2008) 042073

Mu-tau neutrino refraction and collective three-flavor transformations in supernovae

S. Pastor

XXIII International Conference on Neutrino Physics and Astrophysics

Christchurch (New Zealand), May 2008

Journal of Physics: Conference Series **136** (2008) 042076

Sneutrino as DM candidate in an inverse see-saw scenario

F. Bazzocchi

From the Planck Scale to the ElectroWeak Scale (PLANCK 2008)

IFAE Barcelona, May 2008

Neutralino decays in Spontaneous R-parity violation

A. Vicente

From the Planck Scale to the ElectroWeak Scale (PLANCK 2008)

IFAE Barcelona, May 2008

Neutrinos as cosmological messengers

J.W.F. Valle

4th International Workshop on the Dark Side of the Universe

Cairo (Egypt), June 2008

AIP Conference Proceedings **1115** (2009) 13-26

Lepton flavour violating processes and the seesaw mechanism

M. Hirsch

Melbourne Neutrino Theory Workshop

Melbourne (Australia), June 2008

Mu-tau neutrino refraction and collective three-flavor transformations in supernovae

S. Pastor

Melbourne Neutrino Theory Workshop

Melbourne (Australia), June 2008

Decoherence in supernova neutrino transformations suppressed by deleptonization

A. Esteban-Pretel

Melbourne Neutrino Theory Workshop

Melbourne (Australia), June 2008

Cosmological Probes of Neutrino Masses (4 lectures)

S. Pastor

International School of Physics "Enrico Fermi", CLXX Course: Measurements of neutrino mass

Varenna (Italy), June 2008

What cosmology can tell us about neutrino physics in the next 10 years?

S. Pastor

10th International Workshop on Neutrino Factories, Super beams and Beta beams (NuFact 08)
Valencia, July 2008
Proceedings of Science (2008), PoS(Nufact08)025

Can OPERA help constraining neutrino NSI

A. Esteban-Pretel
10th International Workshop on Neutrino Factories, Super beams and Beta beams (NuFact 08)
Valencia, July 2008
Proceedings of Science (2008), PoS(Nufact08)057

Sneutrino as DM candidate in an inverse see-saw scenario

F. Bazzocchi
Conference on the Identification of Dark Matter, IDM 2008
Estocolmo (Sweden), August 2008
Proceedings of Science (2008), PoS(idm2008)093

Decoherence in SN neutrino transformations

A. Esteban-Pretel
5th Neutrino Oscillation Workshop (NOW 2008)
Conca Specchiulla, Otranto (Italy) , September 2008
Nuclear Physics B (Proceedings Supplements) **188** (2009) 121-123

Neutrino masses and mixings: 2008 status

A. Palazzo
5th Neutrino Oscillation Workshop (NOW 2008)
Conca Specchiulla, Otranto (Italy), September 2008
Nuclear Physics B (Proceedings Supplements) **188** (2009) 27-30

Session I: Probing low energy and mass scales

S. Pastor and S. Schonert
5th Neutrino Oscillation Workshop (NOW 2008)
Conca Specchiulla, Otranto (Italy), September 2008
Nuclear Physics B (Proceedings Supplements) **188** (2009) 371-376

Neutrinos as cosmological messengers

J.W.F. Valle
XXIX Encontro Nacional de Física de Partículas e Campos
São Lourenço (Brazil), September 2008

Spontaneous R-parity violation and the origin of neutrino mass

A. Vicente
Symposium on Prospects in the Physics of Discrete Symmetries (DISCRETE 08)
Valencia, December 2008
Journal of Physics: Conference Series **171** (2009) 012073

Modelling tri-bimaximal neutrino mixing

S. Morisi
Symposium on Prospects in the Physics of Discrete Symmetries (DISCRETE 08)
Valencia, December 2008
Journal of Physics: Conference Series **171** (2009) 012069

Long-lived slepton in the coannihilation region and measurement of lepton flavour violation at LHC

S. Kaneko, J. Sato, T. Shimomura, O. Vives and M. Yamanaka
Symposium on Prospects in the Physics of Discrete Symmetries (DISCRETE 08)
Valencia, December 2008
Journal of Physics: Conference Series **171** (2009) 012092