

Memoria Grupo AHEP 2020

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Participación en comités

- **M. Tórtola**

Miembro del International Advisory Committee

XXIX International Conference on Neutrino Physics and Astrophysics (Neutrino 2020)

conferencia virtual, 22 junio - 2 julio

Publicaciones en revistas indexadas Web of Science en 2020

Publicaciones en física teórica

1. *Dark matter stability and Dirac neutrinos using only standard model symmetries*
C. Bonilla, S. Centelles Chuliá, R. Cepedello, E. Peinado y R. Srivastava
Physical Review D **101** (2020) 033011 (arXiv:1812.01599)
DOI: 10.1103/PhysRevD.101.033011
2. *Scotogenic dark symmetry as a residual subgroup of Standard Model symmetries*
S. Centelles Chuliá, R. Cepedello, E. Peinado y R. Srivastava
Chinese Physics C **44** (2020) 083110 (arXiv:1901.06402)
DOI: 10.1088/1674-1137/44/8/083110
3. *Consistency of the dynamical high-scale type-I seesaw mechanism*
S. Mandal, R. Srivastava y J.W.F. Valle
Physical Review D **101** (2020) 115030 (arXiv:1903.03631)
DOI: 10.1103/PhysRevD.101.115030
4. *Constraining nuclear physics parameters with current and future COHERENT data*
D.K. Papoulias, T.S. Kosmas, R. Sahu, V.K.B. Kota y M. Hota
Physics Letters B **800** (2020) 135133 (arXiv:1903.03722)
DOI: 10.1016/j.physletb.2019.135133
5. *COHERENT constraints after the COHERENT-2020 quenching factor measurement*
D.K. Papoulias
Physical Review D **102** (2020) 113004 (arXiv:1907.11644)
DOI: 10.1103/PhysRevD.102.113004
6. *A theory for scotogenic dark matter stabilised by residual gauge symmetry*
J. Leite, O. Popov, R. Srivastava y J.W.F. Valle
Physics Letters B **802** (2020) 135254 (arXiv:1909.06386)
DOI: 10.1016/j.physletb.2020.135254
7. *Gravitational footprints of massive neutrinos and lepton number breaking*
A. Addazi, A. Marcianò, A.P. Morais, R. Pasechnik, R. Srivastava y J.W.F. Valle
Physics Letters B **807** (2020) 135577 (arXiv:1909.09740)
DOI: 10.1016/j.physletb.2020.135577

8. *Dirac neutrinos from Peccei-Quinn symmetry: A fresh look at the axion*
E. Peinado, **M. Reig**, **R. Srivastava** y **J.W.F. Valle**
Modern Physics Letters A **35** (2020) 2050176 (arXiv:1910.02961)
DOI: 10.1142/S021773232050176X
9. *Flavour and CP predictions from orbifold compactification*
F.J. de Anda, **J.W.F. Valle** y C. Vaquera-Araujo
Physics Letters B **801** (2020) 135195 (arXiv:1910.05605)
DOI: 10.1016/j.physletb.2019.135195
10. *Constraining power of open likelihoods, made prior-independent*
S. Gariazzo
European Physical Journal C **80** (2020) 552 (arXiv:1910.06646)
DOI: 10.1140/epjc/s10052-020-8126-0
11. *Phenomenology of scotogenic scalar dark matter*
I.M. Ávila, **V. De Romeri**, **L. Duarte** y **J.W.F. Valle**
European Physical Journal C **80** (2020) 908 (arXiv:1910.08422)
DOI: 10.1140/epjc/s10052-020-08480-z
12. *Neutrino clustering in the Milky Way and beyond*
P. Mertsch, G. Parimbelli, P.F. de Salas, **S. Gariazzo**, J. Lesgourgues y **S. Pastor**
Journal of Cosmology and Astroparticle Physics **01** (2020) 015 (arXiv:1910.13388)
DOI: 10.1088/1475-7516/2020/01/015
13. *Sequentially loop suppressed fermion masses from a single discrete symmetry*
C. Arbeláez, A.E. Cárcamo Hernández, **R. Cepedello**, S. Kovalenko e I. Schmidt
Journal of High Energy Physics **06** (2020) 043 (arXiv:1911.02033)
DOI: 10.1007/JHEP06(2020)043
14. *Sterile neutrinos with altered dispersion relations revisited*
G. Barenboim, **P. Martínez-Miravé**, **C.A. Ternes** y **M. Tórtola**
Journal of High Energy Physics **03** (2020) 070 (arXiv:1911.02329)
DOI: 10.1007/JHEP03(2020)070
15. *Two-Higgs-doublet models with a flavored Z_2 symmetry*
S. Centelles Chuliá, W. Rodejohann y U.J. Saldaña-Salazar
Physical Review D **101** (2020) 035013 (arXiv:1911.06824)
DOI: 10.1103/PhysRevD.101.035013
16. *Asymmetric tri-bi-maximal mixing and residual symmetries*
S. Centelles Chuliá y A. Trautner
Modern Physics Letters A **35** (2020) 2050292 (arXiv:1911.12043)
DOI: 10.1142/S0217732320502922
17. *General parametrization of Majorana neutrino mass models*
I. Cordero-Carrión, **A. Vicente** y **M. Hirsch**
Physical Review D **101** (2020) 075032 (arXiv:1912.08858)
DOI: 10.1103/PhysRevD.101.075032

18. *High-energy constraints from low-energy neutrino nonstandard interactions*
J. Terol-Calvo, M. Tórtola y A. Vicente
 Physical Review D **101** (2020) 095010 (arXiv:1912.09131)
 DOI: 10.1103/PhysRevD.101.095010
19. *Can Lorentz invariance violation affect the sensitivity of Deep Underground Neutrino Experiment?*
 S.K. Agarwalla y **M. Masud**
 European Physical Journal C **80** (2020) 716 (arXiv:1912.13306)
 DOI: 10.1140/epjc/s10052-020-8303-1
20. *Heavy neutral leptons at ANUBIS*
M. Hirsch y Z.S. Wang
 Physical Review D **101** (2020) 055034 (arXiv:2001.04750)
 DOI: 10.1103/PhysRevD.101.055034
21. *Effects of matter density profiles on neutrino oscillations for T2HK and T2HKK*
 S.F. King, **S. Molina Sedgwick**, S.J. Parke y N.W. Prouse
 Physical Review D **101** (2020) 076019 (arXiv:2001.05505)
 DOI: 10.1103/PhysRevD.101.076019
22. *Probing new neutral gauge bosons with CEνNS and neutrino-electron scattering*
 O.G. Miranda, **D.K. Papoulias, M. Tórtola y J.W.F. Valle**
 Physical Review D **101** (2020) 073005 (arXiv:2002.01482)
 DOI: 10.1103/PhysRevD.101.073005
23. *Predictions from warped flavor dynamics based on the T' family group*
 P. Chen, G.J. Ding, **Jun-Nan Lu y J.W.F. Valle**
 Physical Review D **102** (2020) 095014 (arXiv:2003.02734)
 DOI: 10.1103/PhysRevD.102.095014
24. *Scotogenic dark matter and Dirac neutrinos from unbroken gauged B-L symmetry*
J. Leite, A. Morales, **J.W.F. Valle** y C. Vaquera-Araujo
 Physics Letters B **807** (2020) 135537 (arXiv:2003.02950)
 DOI: 10.1016/j.physletb.2020.135537
25. *Long-lived charged particles and multilepton signatures from neutrino mass models*
 C. Arbeláez, G. Cottin, J.C. Helo y **M. Hirsch**
 Physical Review D **101** (2020) 095033 (arXiv:2003.11494)
 DOI: 10.1103/PhysRevD.101.095033
26. *Implications of the first detection of coherent elastic neutrino-nucleus scattering (CEνNS) with liquid Argon*
 O.G. Miranda, **D.K. Papoulias**, G. Sánchez García, O. Sanders, **M. Tórtola y J.W.F. Valle**
 Journal of High Energy Physics **05** (2020) 130 (arXiv:2003.12050)
 DOI: 10.1007/JHEP05(2020)130
27. *Neutrino dark matter and the Higgs portal: improved freeze-in analysis*
V. De Romeri, D. Karamitros, O. Lebedev y T. Toma

- Journal of High Energy Physics **10** (2020) 137 (arXiv:2003.12606)
DOI: 10.1007/JHEP10(2020)137
28. *Generalizing the Scotogenic model*
P. Escribano, M. Reig y A. Vicente
Journal of High Energy Physics **07** (2020) 097 (arXiv:2004.05172)
DOI: 10.1007/JHEP07(2020)097
29. *Probing the predictions of an orbifold theory of flavor*
F.J. de Anda, N. Nath, **J.W.F. Valle** y C. Vaquera-Araujo
Physical Review D **101** (2020) 116012 (arXiv:2004.06735)
DOI: 10.1103/PhysRevD.101.116012
30. *Minimal 3-loop neutrino mass models and charged lepton flavor violation*
R. Cepedello, M. Hirsch, P. Rocha-Morán y A. Vicente
Journal of High Energy Physics **08** (2020) 067 (arXiv:2005.00015)
DOI: 10.1007/JHEP08(2020)067
31. *Dynamical symmetry breaking and fermion mass hierarchy in the scale-invariant 3-3-1 model*
A.G. Dias, **J. Leite**, B.L. Sánchez-Vega y W.C. Vieira
Physical Review D **102** (2020) 015021 (arXiv:2005.00556)
DOI: 10.1103/PhysRevD.102.015021
32. *Soundness of dark energy properties*
E. Di Valentino, **S. Gariazzo**, O. Mena y S. Vagnozzi
Journal of Cosmology and Astroparticle Physics **07** (2020) 045 (arXiv:2005.02062)
DOI: 10.1088/1475-7516/2020/07/045
33. *Testing triplet fermions at the electron-positron and electron-proton colliders using fat jet signatures*
A. Das, **S. Mandal** y T. Modak
Physical Review D **102** (2020) 033001 (arXiv:2005.02267)
DOI: 10.1103/PhysRevD.102.033001
34. *Probing neutrino quantum decoherence at reactor experiments*
A. de Gouvêa, **V. De Romeri y C.A. Ternes**
Journal of High Energy Physics **08** (2020) 049 (arXiv:2005.03022)
DOI: 10.1007/JHEP08(2020)049
35. *Dark matter stability from Dirac neutrinos in scotogenic 3-3-1-1 theory*
J. Leite, A. Morales, **J.W.F. Valle** y C. Vaquera-Araujo
Physical Review D **102** (2020) 015022 (arXiv:2005.03600)
DOI: 10.1103/PhysRevD.102.015022
36. *CPT and CP, an entangled couple*
G. Barenboim, **C.A. Ternes y M. Tórtola**
Journal of High Energy Physics **07** (2020) 155 (arXiv:2005.05975)
DOI: 10.1007/JHEP07(2020)155

37. *Natural axion model from flavour*
S. Centelles Chuliá, C. Döring, W. Rodejohann y U.J. Saldaña-Salazar
 Journal of High Energy Physics **09** (2020) 137 (arXiv:2005.13541)
 DOI: 10.1007/JHEP09(2020)137
38. *Simple theory for scotogenic dark matter with residual matter-parity*
 A.E. Cárcamo Hernández, **J.W.F. Valle** y C. Vaquera-Araujo
 Physics Letters B **809** (2020) 135757 (arXiv:2006.06009)
 DOI: 10.1016/j.physletb.2020.135757
39. *Maximal axion misalignment from a minimal model*
 J. Huang, A. Madden, D. Racco y **M. Reig**
 Journal of High Energy Physics **10** (2020) 143 (arXiv:2006.07379)
 DOI: 10.1007/JHEP10(2020)143
40. *Sterile neutrino self-interactions: H_0 tension and short-baseline anomalies*
 M. Archidiacono, **S. Gariazzo**, C. Giunti, S. Hannestad y T. Tram
 Journal of Cosmology and Astroparticle Physics **12** (2020) 029 (arXiv:2006.12885)
 DOI: 10.1088/1475-7516/2020/12/029
41. *Light vector mediators facing XENON1T data*
 D. Aristizábal Sierra, **V. De Romeri**, L.J. Flores y D.K. Papoulias
 Physics Letters B **809** (2020) 135681 (arXiv:2006.12457)
 DOI: 10.1016/j.physletb.2020.135681
42. *Cornering (quasi) degenerate neutrinos with cosmology*
 M. Lattanzi, M. Gerbino, K. Freese, G. Kane y **J.W.F. Valle**
 Journal of High Energy Physics **10** (2020) 213 (arXiv:2007.01650)
 DOI: 10.1007/JHEP10(2020)213
43. *XENON1T signal from transition neutrino magnetic moments*
 O.G. Miranda, D.K. Papoulias, **M. Tórtola** y **J.W.F. Valle**
 Physics Letters B **808** (2020) 135685 (arXiv:2007.01765)
 DOI: 10.1016/j.physletb.2020.135685
44. *Scotogenic dark matter in an orbifold theory of flavor*
 F.J. de Anda, I. Antoniadis, **J.W.F. Valle** y C. Vaquera-Araujo
 Journal of High Energy Physics **10** (2020) 190 (arXiv:2007.10402)
 DOI: 10.1007/JHEP10(2020)190
45. *$(g - 2)$ anomalies and neutrino mass*
 C. Arbeláez, **R. Cepedello**, R.M. Fonseca y **M. Hirsch**
 Physical Review D **102** (2020) 075005 (arXiv:2007.11007)
 DOI: 10.1103/PhysRevD.102.075005
46. *Future CEvNS experiments as probes of lepton unitarity and light sterile neutrinos*
 O.G. Miranda, **D.K. Papoulias**, O. Sanders, **M. Tórtola** y **J.W.F. Valle**
 Physical Review D **102** (2020) 113014 (arXiv:2008.02759)
 DOI: 10.1103/PhysRevD.102.113014

47. *Reloading the axion in a 3-3-1 setup*
A.G. Dias, **J. Leite**, **J.W.F. Valle** y C. Vaquera-Araujo
Physics Letters B **810** (2020) 135829 (arXiv:2008.10650)
DOI: 10.1016/j.physletb.2020.135829

Publicaciones en el marco de grandes colaboraciones internacionales

1. *Searching for long-lived particles beyond the Standard Model at the Large Hadron Collider*
J. Alimena et al [incluye a **M. Hirsch**]
Journal of Physics G **47** (2020) 090501 (arXiv:1903.04497)
DOI: 10.1088/1361-6471/ab4574
2. *Neutrino interaction classification with a convolutional neural network in the DUNE far detector*
DUNE collaboration, B. Abi et al [incluye a **V. De Romeri**, **M. Masud**, **C.A. Ternes**, **M. Tórtola** y **J.W.F. Valle**]
Physical Review D **102** (2020) 092003 (arXiv:2006.15052)
DOI: 10.1103/PhysRevD.102.092003
3. *Long-baseline neutrino oscillation physics potential of the DUNE experiment*
DUNE collaboration, B. Abi et al [incluye a **V. De Romeri**, **M. Masud**, **C.A. Ternes**, **M. Tórtola** y **J.W.F. Valle**]
European Physical Journal C **80** (2020) 978 (arXiv:2006.16043)
DOI: 10.1140/epjc/s10052-020-08456-z
4. *First results on ProtoDUNE-SP liquid argon time projection chamber performance from a beam test at the CERN Neutrino Platform*
DUNE collaboration, B. Abi et al [incluye a **V. De Romeri**, **M. Masud**, **C.A. Ternes**, **M. Tórtola** y **J.W.F. Valle**]
Journal of Instrumentation **15** (2020) P12004 (arXiv:2007.06722)
DOI: 10.1088/1748-0221/15/12/P12004
5. *Volume IV. The DUNE far detector single-phase technology*
DUNE collaboration, B. Abi et al [incluye a **V. De Romeri**, **M. Masud**, **C.A. Ternes**, **M. Tórtola** y **J.W.F. Valle**]
Journal of Instrumentation **15** (2020) T08010 (arXiv:2002.03010)
DOI: 10.1088/1748-0221/15/08/T08010
6. *Volume III. DUNE far detector technical coordination*
DUNE collaboration, B. Abi et al [incluye a **V. De Romeri**, **M. Masud**, **C.A. Ternes**, **M. Tórtola** y **J.W.F. Valle**]
Journal of Instrumentation **15** (2020) T08009 (arXiv:2002.03008)
DOI: 10.1088/1748-0221/15/08/T08009
7. *Volume I: Introduction to DUNE*
DUNE collaboration, B. Abi et al [incluye a **V. De Romeri**, **M. Masud**, **C.A. Ternes**, **M. Tórtola** y **J.W.F. Valle**]
Journal of Instrumentation **15** (2020) T08008 (arXiv:2002.02967)
DOI: 10.1088/1748-0221/15/08/T08008

Ponencias y comunicaciones a congresos

1. *A theory for scotogenic dark matter stabilised by residual gauge symmetry*
J. Leite
International Conference on Neutrinos and Dark Matter (NDM-2020)
Hurghada (Egipto), 11-14 enero
2. *Minimalistic scotogenic scalar dark matter*
V. De Romeri
International Conference on Neutrinos and Dark Matter (NDM-2020)
Hurghada (Egipto), 11-14 enero
3. *B-L breaking scenarios*
S. Centelles Chuliá
International Conference on Neutrinos and Dark Matter (NDM-2020)
Hurghada (Egipto), 11-14 enero
4. *Dark Matter and Physics Beyond the Standard Model at DUNE*
V. De Romeri
International Conference on Neutrinos and Dark Matter (NDM-2020)
Hurghada (Egipto), 11-14 enero
5. *Cosmological relic neutrinos, from A to Z*
S. Gariazzo
INT Program Neutrinos from the Lab to the Cosmos
Seattle (Estados Unidos), 13 enero - 7 febrero
6. *CPT and Lorentz violation at DUNE*
C.A. Ternes
1st Annual Conference COST Quantum gravity phenomenology in the multi-messenger approach
Granada, 10-13 marzo
7. *Sterile neutrinos with altered dispersion relations*
P. Martínez-Miravé
1st Annual Conference COST Quantum gravity phenomenology in the multi-messenger approach
Granada, 10-13 marzo
8. *High-energy constraints from low-energy neutrino non-standard interactions*
J. Terol Calvo
Higgs and Effective Field Theory (HEFT 2020)
conferencia virtual, 15-17 abril
9. *Light sterile neutrinos: the current picture*
S. Gariazzo
Conference on Flavour Physics and CP violation (FPCP 2020)
conferencia virtual, 8-12 junio
10. *Maximal axion misalignment from a minimal model (póster)*
M. Reig

- Zooming in on Axions in the Early Universe
conferencia virtual, 22-26 junio
11. *Minimal three-loop neutrino mass models and charged lepton flavor violation (póster)*
R. Cepedello
XXIX International Conference on Neutrino Physics and Astrophysics (Neutrino 2020)
conferencia virtual, 22 junio - 2 julio
 12. *Non-standard interactions effects in next-generation neutrino experiments (póster)*
S. Molina Sedgwick
XXIX International Conference on Neutrino Physics and Astrophysics (Neutrino 2020)
conferencia virtual, 22 junio - 2 julio
 13. *DUNE as an ultra-light dark matter detector (póster)*
P. Martínez-Miravé
XXIX International Conference on Neutrino Physics and Astrophysics (Neutrino 2020)
conferencia virtual, 22 junio - 2 julio
 14. *Sensitivity of Lepton Number Violating Meson Decays in Different Experiments (póster)*
S. Mandal
XXIX International Conference on Neutrino Physics and Astrophysics (Neutrino 2020)
conferencia virtual, 22 junio - 2 julio
 15. *Multiply charged long-lived particles*
M. Hirsch
13th MoEDAL collaboration meeting
conferencia virtual, 1-3 julio
 16. *Theoretical introduction to neutrino masses*
S. Gariazzo
Thematic afternoon on neutrino masses
conferencia virtual, 8 julio
 17. *Neutrino quantum decoherence at current and future reactor experiments*
C.A. Ternes
New Perspectives 2020 (Fermilab)
conferencia virtual, 20-21 julio
 18. *Global fits to neutrino masses and mixings*
M. Tórtola
40th International Conference on High Energy Physics (ICHEP 2020)
conferencia virtual, 28 julio - 6 agosto
 19. *Neutrino oscillations, flavor theories and dark matter*
J.W.F. Valle
40th International Conference on High Energy Physics (ICHEP 2020)
conferencia virtual, 28 julio - 6 agosto
 20. *Neutrino physics with the PTOLEMY project*
S. Gariazzo

- 40th International Conference on High Energy Physics (ICHEP 2020)
conferencia virtual, 28 julio - 6 agosto
21. *Promoting gender equality and diversity in physics from IFIC*
M. Tórtola
40th International Conference on High Energy Physics (ICHEP 2020)
conferencia virtual, 28 julio - 6 agosto
 22. *Review Talk: New ideas from the neutrino sector*
M. Tórtola
DESY Virtual Theory Forum 2020
conferencia virtual, 22-25 septiembre
 23. *New Physics Searches with Neutrino Experiments*
V. De Romeri
5th IBS-IFT-MultiDark Workshop
conferencia virtual, 13-16 octubre
 24. *BSM searches using the first CEvNS detection in liquid Argon*
M. Tórtola
3rd Magnificent CEvNS workshop
conferencia virtual, 16-20 noviembre
 25. *Probing neutrino quantum decoherence at reactor experiments*
V. De Romeri
3rd Magnificent CEvNS workshop
conferencia virtual, 16-20 noviembre
 26. *Neutrinos and Search for Underlying Symmetries*
J.W.F. Valle
NCTS Annual Theory Meeting 2020: Particles, Cosmology and Strings
conferencia virtual, 9-11 diciembre
 27. *LNV meson decays as a probe of Majorana neutrino (póster)*
S. Mandal
DAE-BRNS High Energy Physics Symposium 2020
conferencia virtual, 14-18 diciembre

Proceedings publicados

1. *Scotogenic Neutrino Masses and Dark Matter Stability from Residual Gauge Symmetry*
J. Leite, O. Popov, R. Srivastava y J.W.F. Valle
International Conference on Neutrinos and Dark Matter (NDM-2020)
Andromeda Proceedings (2020)
DOI: 10.31526/ACP.NDM-2020.22
2. *Minimalistic Scotogenic Scalar Dark Matter*
V. De Romeri
International Conference on Neutrinos and Dark Matter (NDM-2020)

Andromeda Proceedings (2020)
DOI: 10.31526/ACP.NDM-2020.18

3. *Relic neutrinos: local clustering and consequences for direct detection*
S. Gariazzo
European Physical Society Conference on High Energy Physics (EPS-HEP 2019)
Proceedings of Science PoS(**EPS-HEP2019**)072
DOI: 10.22323/1.364.0072
4. *Theory status and implications of R_{K^*}*
A. Vicente
18th Int. Conference on B-Physics at Frontier Machines (Beauty 2019)
Proceedings of Science PoS(**Beauty2019**)029
DOI: 10.22323/1.377.0029
5. *Active-sterile neutrino oscillations in the early Universe with the complete mixing matrix*
S. Pastor
16th International Conference on Topics in Astroparticle and Underground Physics (TAUP 2019)
Journal of Physics: Conference Series **1468** (2020) 012005
DOI: 10.1088/1742-6596/1468/1/012005
6. *Hunting for light dark matter with DUNE PRISM*
V. De Romeri, K.J. Kelly y P.A.N. Machado
16th International Conference on Topics in Astroparticle and Underground Physics (TAUP 2019)
Journal of Physics: Conference Series **1468** (2020) 012061
DOI: 10.1088/1742-6596/1468/1/012061
7. *Light sterile neutrinos: the current picture from neutrino oscillations*
S. Gariazzo
16th International Conference on Topics in Astroparticle and Underground Physics (TAUP 2019)
Journal of Physics: Conference Series **1468** (2020) 012061
DOI: 10.1088/1742-6596/1468/1/012120
8. *Neutrino masses beyond the minimal seesaw*
R. Cepedello, R. Fonseca y M. Hirsch
16th International Conference on Topics in Astroparticle and Underground Physics (TAUP 2019)
Journal of Physics: Conference Series **1468** (2020) 012171
DOI: 10.1088/1742-6596/1468/1/012171

Tesis de máster

1. *Active-sterile neutrino oscillations in low-reheating scenarios*
Mario Fernández Navarro
Máster in Física Avanzada, Universidad de Valencia
Dirigida por Sergio Pastor, Stefano Gariazzo y Pablo Fernández de Salas
Fecha lectura: convocatoria de julio
2. *Flavour symmetries from extra dimensions*
Omar Medina Rosales

Máster in Física Avanzada, Universidad de Valencia
Dirigida por José W.F. Valle
Fecha lectura: convocatoria de julio

3. *Leggett-Garg inequalities in neutrino oscillations*

Josep Martínez Romeu
Máster in Física Avanzada, Universidad de Valencia
Dirigida por Mariam Tórtola
Fecha lectura: convocatoria de septiembre

4. *Phenomenology Beyond the SM: neutrino masses and dark matter in scotogenic models*

Miguel Puerta Catoira
Máster in Física Avanzada, Universidad de Valencia
Dirigida por Avelino Vicente
Fecha lectura: convocatoria de septiembre

Tesis doctoral

1. *Neutrino oscillation phenomenology in the standard model and beyond*

Christoph A. Ternes
Universidad de Valencia
Dirigida por Mariam Tórtola
Fecha lectura: 23 julio

Cursos impartidos

1. *Computer tools in particle physics*

A. Vicente
Curso on-line para estudiantes de doctorado (5 horas)
International Institute of Physics, U. Federal do Rio Grande do Norte, Natal (Brasil), 6-8 mayo

Coloquios y seminarios impartidos

– *Precision-level neutrino studies at Super-K and Hyper-K*

S. Molina Sedgwick
Particle Physics Research Centre, Queen Mary, Univ. Londres (Reino Unido), 27 febrero

– *Precision-era Neutrino Studies at Super-Kamiokande and Hyper-Kamiokande*

S. Molina Sedgwick
IFIC Valencia, 3 marzo

– *Searches for new physics with neutrino experiments*

V. De Romeri
Helsinki Institute of Physics (Finlandia), 4 marzo

– *Searches for new physics with neutrino experiments*

V. De Romeri
Univ. Jyväskylä (Finlandia), 5 marzo

- *Probing neutrino quantum decoherence at reactor experiments (seminario remoto)*
V. De Romeri y C.A. Ternes
Center for Neutrino Physics, Virginia Tech (Estados Unidos), 3 junio
- *How robust are the recent CP violation measurements? (seminario remoto)*
M. Tórtola
Brookhaven Neutrino Theory Virtual Seminars (Estados Unidos), 8 junio
- *Neutrinos: oscilaciones de sabor y otras anomalías (seminario remoto)*
M. Tórtola
Coloquios Departamento de Física, Universidad Católica del Norte, Antofagasta (Chile), 2 julio
- *New physics probes with neutrino and dark matter experiments (seminario remoto)*
V. De Romeri
Particle Physics Astrophysics & Cosmology Center, Univ. Pittsburgh (Estados Unidos), 23 julio
- *Maximal axion misalignment from a minimal model (seminario remoto)*
M. Reig
Beyond the Standard Model PANDEMIC Seminars, 3 noviembre