

Yasaman Farzan,
School of Physics,
Institute for research
in fundamental
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P. O. Box 19395-5531,
Tehran, Iran

To whom it may concern:

Enclosed please find my resumé, containing my personal and professional data.

Yours faithfully,

Yasaman Farzan

Curriculum Vitae

Personal

- *Family Name:* Farzan
- *First Name:* Yasaman
- *Nationality:* Iranian
- *Birth day:* 06/09/1976
- *Birth place:* Tabriz-Iran
- *Gender:* Female
- *Marital Status:* Married, No children
- *Present Institution:* Institute for research in Fundamental Sciences (IPM), P.O. Box 19395-5531, Tehran, Iran.
- *E-mail:* yasaman@theory.ipm.ac.ir
- *homepage:* <http://physics.ipm.ac.ir/people/farzan/>
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- *Fax:* +98-(21) 2228-0415

Professional

Present position: Full professor of Physics at IPM, Tehran, 2015-present;

Past position: Associate Professor of Physics at IPM, Tehran, 2009-2015; Assistant Professor of physics at IPM, Tehran, 2005-2009

Education:

- Under-graduate: Sharif University of Technology, Tehran, Iran 1994-1998.

- MS: Sharif University of Technology, Tehran, Iran, 1998-1999.
- PhD: Scuola Internazionale di Studi Avanzati (SISSA), via Beirut 4, I-34014, Trieste, Italy.
 - Graduation date: 18 Oct 2004.
 - PhD Advisers: Prof. A. Yu. Smirnov and Prof Michael Peskin.
 - PhD thesis: Prospects of Determining the Neutrino Mass and CP-violating Parameters in Upcoming Experiments

I had been a long-term visitor to Stanford Linear Accelerator Center (SLAC), Stanford Univ., California, USA from September 2001 to September 2004.

Awards and Fellowships

1. Young scientist Abu-Reihan award of science academy of Iran;
2. **2013 ICTP prize;**
3. **2008 IUPAP Young Scientist Prize;**
4. Assistant professor grant award of Nokhbegan, 2008;
5. ICTP regular associate member, 1 Jan 2016-31 Dec 2021;
6. ICTP junior associate member, 1 Jan 2007-31 Dec 2012;
7. **The Khwarizmi young scientist Award, 2006;**
8. Ranking first in the nationwide 98 entrance exam of MSc in physics;
9. Ranking first in my undergraduate class;
10. **Winning i) honorable mention; ii) best girl student; iii) silver medal in theory in the International physics Olympiad held in China in 1994.**

Coordinating Scientific Networks

Since 2012, I have been the Principal Investigator (PI) of European H2020 networks INVISIBLES, INVISIBLES+ and Elusives which focus on Neutrino and Dark Matter phenomenology and their connection. For more information about these networks you may visit their websites at invisibles.eu and elusives.eu.

Conference organization and proceeding editorship

Since joining physics school of IPM, I have taken several steps to form a high energy phenomenology group at this institute, among which one may list the following activities:

- In September 2005: Summer School on the Phenomenological Aspects of the Elementary Particle Physics
website address:
<http://physics.ipm.ac.ir/conferences/pheno-school/index.htm>
- In May 2006: IPM school and conference on Lepton and Hadron Physics, IPM-LHP06;
website address:
<http://physics.ipm.ac.ir/conferences/lhp06/index.jsp>
The proceedings are available at
<http://www.slac.stanford.edu/econf/C0605151/>.
- In October 2007: A national school on phenomenological and experimental aspects of particle physics.
website address:
<http://physics.ipm.ac.ir/conferences/pheno-school-07/index.htm>.
- In May 2008: International school and workshop on phenomenological aspects of particle physics.
website address:
<http://physics.ipm.ac.ir/conferences/ipmep/index.htm>

- From 2005 to 2010, I was in charge of arranging the weekly meetings of our phenomenology journal club.
- In September 2011: IPM school and workshop on recent developments in Particle Physics (IPP11);
website address:
<http://physics.ipm.ac.ir/conferences/ipp11/index.jsp>
- Along with my colleagues Frigerio and Lunardini, in June 2012 we organized a one-day meeting in honor of our supervisor Prof Smirnov in Florence, Italy. For more information you may visit its website at
<http://www.ggi.fi.infn.it/index.php?p=events.inc&id=101>.
- In September 2012: IPM international school and workshop on Particle Physics (IPP12): Neutrino Physics and Astrophysics;
website address:
<http://physics.ipm.ac.ir/conferences/ipp12/index.jsp>
- In July 2013, Invisibles school and workshop at Durham , UK;
website addresses:
<http://invisibles.eu/news/invisibles13-workshop-july-15-19-2013-durham-uk>
<http://www.ippp.dur.ac.uk/ross/invisibles13/school/school.html>
- In May 2013: IPM international school and workshop on Particle Physics (IPP13): Flavor physics and dark matter
website address:
<http://physics.ipm.ac.ir/conferences/ipp13/index.jsp>.
- In December 2013: IPM one-day school on symmetries in high energy physics
website address:
<http://physics.ipm.ac.ir/conferences/symmetries/index.jsp>.
- In January 2014: Meeting on challenges of physics education
website address:
<http://physics.ipm.ir/conferences/chaphys/index.jsp>.
- In September 2014: IPM international school and workshop on Particle Physics (IPP14): Leptogenesis and dark matter website address:

<http://physics.ipm.ac.ir/conferences/ipp14/index.jsp>

- In September 2015: IPM school and conference on Particle Physics (IPP15): Neutrino physics, dark matter and B-physics website address:
<http://physics.ipm.ac.ir/conferences/ipp15/index.jsp>

International Advisory Board

- Convener of Neutrino session of 38th International Conference on High Energy Physics (ICHEP) held in Chicago, August 3-10, 2016.
<http://www.ichep2016.org/>
- XXVII International Conference on Neutrino Physics and Astrophysics (Neutrino 2016), 4-9 July 2016, Imperial College, London, Britain.
<http://neutrino2016.iopconfs.org/home/>
- XXVIII International Conference on Neutrino Physics and Astrophysics (Neutrino 2018), 4-9 June 2018, Heidelberg, Germany.
<https://www.mpi-hd.mpg.de/nu2018/>
- INVISIBLES 2019 school, 3-7 June, 2019, Canfranc, Spain and INVISIBLES 2019 workshop, 10-14 June, 2019, Valencia, Spain.
<https://indico.ific.uv.es/event/3427/>
- Convener of neutrino session of The 27th International Conference on Supersymmetry and Unification of Fundamental Interactions (SUSY 2019), 20-24 May 2019, TEXAS A&M Univ, USA.
<https://indico.cern.ch/event/746178/>
- Member of international advisory committee of the 2019 International Neutrino Summer School, to be held at Fermilab, August 5-17, 2019.
<https://indico.fnal.gov/event/19346/>

Editorship

- On the editorial board of “Frontiers in High-Energy and Astroparticle Physics.”

Teaching experience

Courses:

- A one semester course on “particle physics” in Autumn 2010, at IPM, Tehran;
- A one semester course on “Quantum field theory” at IPM, in Autumn 2011.
- A one semester course on “Particle physics” in winter and spring 2012, at IPM, Tehran;
- A one semester course on “Beyond standard model” in fall and winter 2012, at IPM, Tehran;
- A one semester course entitled “Special topics: particle physics in cosmology” at IPM, Tehran in winter and Spring 2013.
- A one semester course on “Quantum field theory” at IPM, in Autumn 2015.
- A one semester course on “Standard model of particle physics” at IPM, Tehran in winter and Spring 2016.
- A one semester course on “Numerical methods in Particle Physics,” at IPM, in Autumn 2016.
- A one semester course on “The Role of Particle Physics in Early Universe,” at IPM, in Spring 2017.

Lecture series:

- Lecture series on “Neutrino physics” at Summer School on the Phenomenological Aspects of the Elementary Particle Physics, (IPM), 4-8 September 2005;
- Lecture series on “Supersymmetry” at IPM National School on the Phenomenological and Experimental Aspects of the Elementary Particle Physics, 16-19 October 2007;

- Lecture series on “Supersymmetry” at IPM school and workshop on recent developments in Particle Physics (IPP11) School of Physics, IPM, Tehran, Iran 4-7 September, 2011;
- Lecture series on “Neutrino physics” at METU, Ankara, Turkey in February 2012;
- Lecture series on “Dark matter” at Shahid Madani Univ of Azerbaijan, in September 2015.

Graduate student training

PhD students:

- S. Y. Ayazi, graduated in 2008, thesis on “Electric dipole moment of the elementary particles in Minimal Supersymmetric Standard Model (MSSM);”
- A. Esmaili Taklimi, graduated in 2010, thesis on “ Effects of CP-violation and exotic effects on cosmic neutrino flavor ratio;”
- Amin Rezaei Akbarieh, graduated in 2015, thesis on “Vector boson as dark matter;”
- Pouya Bakhti, graduated in 2015, thesis on “Discovery potential of long and medium baseline neutrino experiments.”
- Meshkat Rajaei, to be graduated in 2019.
- Tahereh Hamedi, to be graduated in 2021.

MSc students:

- S. Najjari, graduated in 2010, thesis on “Tracing CP-violating phases of MSSM in the lepton flavor violating processes;”
- S. Khatibi, graduated in 2010, thesis on “Leptogenesis and gravitino overproduction;”
- T. Hamedi, graduated in 2012, thesis on “A review on sources of cosmic neutrinos;”
- Mehdi Rezaei, graduated in 2015; thesis on “Massive neutrinos in cosmology.”
- Kimiya Moharrami, graduated in 2018; thesis on “Studying neutrino oscillation in long baseline experiments.”
- Shahin Aliabadi, to be graduated in 2019.

Computer skills

I am familiar with **C++**. For my research I widely use **Mathematica** and the **GLOBES** software.

Books and book chapters

- Y. Farzan, “Lepton flavor violation shedding light on CP-violation,” In *Larsen, Ryan J. (ed.): New developments in the standard model* 211-226 Published by Nova publishers;
- **An electronic book on neutrino physics in Farsi;**
- **An electronic book on introduction to particle physics in Farsi;**
- Educational text on dark matter.

Seminars

Apart from the weekly seminars that I have given in my home institute (a list of which can be found in <http://physics.ipm.ac.ir/seminars/>), I have delivered presentations in the following occasions:

1. A talk entitled “*Dark matter decaying into intermediate milli-charged particles and its phenomenological implications*” at 4th IPM Workshop on Particle Physics Phenomenology (IWPPP) at IPM, on February 20, 2019.
2. A talk entitled “*Dark matter and its various candidates*” at Sahand Univ, Tabriz, on 18th of Feb, 2019.
3. A colloquium entitled “*Flavor of cosmic neutrinos preserved by ultralight dark matter*” at Tehran Univ. on December 29th, 2018.
4. A talk entitled “*Non-standard interactions*” at IITP-ICTP workshop on neutrino physics, Mumbai, India in Dec 14-18 2018.
5. A talk entitled “*Popularizing Science in Iran*” at IPM and at the meeting of SCICOMM organized by Saros Team in November, 2019.
6. A talk entitled “*Non-standard interactions*” at INVISIBLES 2019 workshop at Karlsruhe, Germany, 2nd June 2018.
7. A seminar entitled “*Probing neutrino couplings to hypothetical light bosons,*” at IFIC, Valencia Univ, Valencia, Spain 12 June 2018.
8. A talk entitled “*Non-standard interactions with light mediators,*” at PANE 2018 meeting at ICTP, Trieste, Italy, 28 May-June 1st, 2018.
9. A talk entitled “*Dark matter and its various candidates,*” at “national conference on gravity and cosmology” held in Isfahan University of Technology, February, 2018.
10. A talk entitled “*Non-standard interactions of neutrinos*” at IPM Workshop on Particle Physics Phenomenology (IWPPP), school of particles and accelerators, 21st Feb 2018.

11. A seminar entitled “*MeV scale neutrino interaction*” at physics school, IPM, Iran on 17th of Oct 2017.
12. A seminar entitled “*Pico-charged intermediate particles rescue dark matter interactions of 511 keV signal*” on 25th of September 2017, Max Planck Institute of Kernphysik, Heidelberg, Germany.
13. A talk entitled “*CP-violation and non-standard Interactions at the MOMENT,*” at 29th Recontres de Blois, 28 May-2 June, Blois, Loire valley, France.
14. A talk entitled “*MeV scale neutrino interaction*” at a workshop entitled “Neutrinos: the quest for a new scale” at CERN, Switzerland, 27-31 March, 2017.
15. An introduction of high energy phenomenology group of physics school at “IPM open day” on 16th of February, 2017.
16. Two talks entitled “*Neutrinos secretly converting to lighter particles to please both KATRIN and the cosmos*”, at Saclay, France on 28th of September 2016 and at “IPM workshop on particle physics phenomenology” on 15th of February, 2017.
17. Three talks entitled “*Viable models for large Non-Standard neutrino Interactions*” at NuFact August 21-26, 2016 in Quy Nhon, Vietnam, at 4th Tabriz meeting on theoretical physics in September, 2016 and at Orsay Univ., France in October 2017.
18. Two talks entitled “*A model for large non-standard interactions of neutrinos leading to the LMA-dark solution,*” at PASCOS meeting at ICTP, Trieste, Italy in June 2015 and at “neutrinos at crossroads” meeting in MITP, Mainz, Germany in August 2015;
19. Two invited talks entitled “*Two-loop snail diagrams: relating neutrino masses to dark matter,*” at Invisibles meeting in Madrid Spain in June 2015 and at IPM spring conference in May 2015;
20. Series of invited seminars on “*symmetries in physics*” at Bu Ali Univ. in Hamedan in April 2015;

21. Invited talk entitled “*Secret interactions of neutrinos and the spectrum of relic neutrinos from supernova explosions*” at fifth conference on particles and fields in February 2015;
22. Invited colloquiums entitled “*What the LHC has found so far*” at Amir Kabir and Khajeh Nasir Univs in Tehran in December 2014;
23. Invited seminar entitled “*Illuminating LMA-Dark solution and superlight sterile neutrinos by intermediate baseline reactor neutrino experiments* in ULB, Brussels, Belgium in October 2014;
24. Invited seminar entitled “*Dark atoms as a solution for the mystery of 3.5 keV line from galaxy clusters*” at Liege University, Belgium in October 2014;
25. **Invited seminar entitled “*Luminous matter shedding light on dark matter*” at the 50th anniversary celebration meeting of ICTP as the winner of ICTP 2013 prize, in Trieste Italy in October 2014;**
26. A seminar entitled “*Dark atoms as a solution for the mystery of 3.5 keV line from galaxy clusters*” at “IPM school and workshop on Particle Physics (IPP14): Leptogenesis and dark matter” held in September 2014 at IPM, Tehran;
27. Invited special seminar entitled “*3.5 keV X-rays as the “21 cm line” of dark atoms, and a link to light sterile neutrinos*” at “Recent progress in theoretical physics” held in September 2014 in Tabriz, Iran;
28. **Leading a discussion session on “lepton flavor violating rare decay” in the workshop of invisibles network held in July 2014 in Paris, France;**
29. Seminar entitled “*Dips in the Diffuse Supernova Neutrino Background*” at Max Planck institute in Heidelberg, Germany in May 2014;
30. Two invited seminars entitled “*Illuminating LMA-Dark solution and superlight sterile neutrinos by intermediate baseline reactor neutrino experiments*” and “*Dips in the Diffuse Supernova Neutrino Background*” at the “News in Neutrino Physics” extended workshop held from 7th of April 2014 until 2nd of May 2014;

31. Invited seminar entitled “*Constraining Super-light Sterile Neutrino Scenario by JUNO and RENO-50*” at conference on “Flavor Physics and Mass Generation” held in Feb 2014 in Singapore;
32. Invited seminar entitled “*Long journey of solar neutrinos*” at fourth conference of physics society of Iran on particles and fields held in January 2014;
33. Invited series of seminars on “*symmetries in particle physics*” at Isfahan Univ., Iran, in November 2013 and at IPM, Tehran, in December 2013;
34. A talk entitled “*Natural explanation for 130 GeV photon line within vector boson dark matter model*” at “Dark side of universe” workshop at SISSA, Trieste, Italy in October 2013 and at IPM, Tehran in December 2013;
35. A series of invited seminars at IZTECH, Izmir, Turkey, in June 2013;
36. A talk on cosmic neutrinos at IPP13 meeting at IPM, Tehran in May 2013;
37. Invited seminar entitled “*Implications of Planck Data for Dark Matter of Various Mass Range*” at “*one day Planck meeting*” at IPM, Tehran in May 2013;
38. **A webinar entitled “*Natural explanation for 130 GeV photon line within vector boson dark matter model*” for invisibles network in February 2013;**
39. A talk on radiative neutrino mass models at IPP12 meeting at IPM, Tehran in September 2012;
40. A seminar with title “*vector like dark matter*” at ICTP, Trieste, Italy in July 2012;
41. Invited seminar with title “*vector like dark matter*” at GGI meeting on neutrinos in Florence, Italy in July 2012;
42. **A short talk in honor of my former supervisor, Prof. Alexei Smirnov at GGI, Florence at the “*Alexei Smirnov Fest*” held in June 2012;**
43. **Presenting Iran node at GGI, Florence, Italy as a part of “invisible network” in June 2012;**

44. **A series of lectures on neutrino physics in Middle East University in Ankara in February 2012;**
45. Invited seminar in Bogazichi Univ. in Istanbul in February 2012;
46. A series of lectures on supersymmetry at IPP11 meeting, IPM, Tehran in September 2011;
47. Invited seminar at Warsaw Univ. in Poland in August 2011;
48. A seminar at 1st Workshop on “*Flavor Symmetries and consequences in Accelerators and Cosmology*,” (FLASY 11), Valencia, Spain, 14 July 2011;
49. **An invited seminar at “International Workshop On Cosmic Rays And Cosmic Neutrinos: ‘Looking At The Neutrino Sky’,” Trieste, June 20 - 24, 2011;**
50. Invited seminar at “*18th Spring Physics Conference Institute for Research in Fundamental Sciences*”, IPM, Tehran, May 18-19, 2011;
51. **Invited colloquium on neutrinos for undergraduate students at universities across Iran: at Amir Kabir Univ, Tabriz Univ., Tehran Univ., Ferdowsi Mashad Univ., Shahid Rajii Univ. and Zanjan Univ.;**
52. Two invited seminars in Valiasr Univ. of Rafsanjan in Dec 2010;
53. **Invited seminar at “Flavor physics in the LHC era” in Singapore in Nov. 2010;**
54. A seminar at ICTP, Italy in May 2010;
55. A seminar at extended workshop on “Dark matter: its origin, nature and prospects for detection” at GGI, Florence on 30th of April, 2010;
56. A seminar at Max-Planck-Institut fuer Kernphysik at Heidelberg, 12 April 2010;
57. **A seminar at Planck 2009 meeting in Padua, Italy, 24-30th of May;**

58. **A colloquium at Ludwig-Maximilians university, Munich on 30th of April, 2009;**
59. Invited seminar at Max Planck institute, Munich on 27th of April, 2009;
60. Invited seminar at Warsaw university on 22th of April, 2009;
61. A seminar at ICTP, Italy on 31st of March 2009;
62. **Invited seminar at conference entitled “Particle Physics, Astrophysics and Quantum Field Theory: 75 years since Solway”, 27-29 November, 2008, Singapore;**
63. Invited plenary seminar at Conference of “Iranian Physics Society (*Anjoman Physic-e Iran*)” in Kashan on 26th of August 2008;
64. **IUPAP young scientist prize ceremony talk at “International Conference on High Energy Physics” (ICHEP 08), Philadelphia, 29 July-5 August; (I could not attend the conference in person because of the visa problems so I recorded my talk in advance and sent it to the organizers. My recorded talk was played at a plenary session at ICHEP08.)**
65. Invited seminar at Feza Gursey Institute in Turkey in June 2008;
66. **A seminar at “IV International Workshop on Neutrino Oscillations in Venice,” April 15-18, 2008;**
67. Invited seminar at Jozef Stefan Institute, Sloveny on 3rd of April, 2008;
68. A seminar at ICTP, Trieste, Italy in March 2008;
69. A series of lectures on the MSSM at “IPM National School on the Phenomenological and Experimental Aspects of the Elementary Particle Physics,” Tehran, Iran, 16-19 October 2007;
70. A poster in “XXIII International Symposium on Lepton and Photon Interactions at High Energy,” Daegu, Korea, 13-18 August 2007;

71. **A seminar at “Ninth International Workshop on Neutrino Factories, Superbeams and Betabeams,” Okayama University, Okayama, Japan, 6-11 August 2007;**
72. A seminar at *CMS conference*, with title “*Unitarity Triangle in the Lepton Sector*,” Sharif Univ., Tehran 25-26 June 2007 ;
73. **Invited seminar at “XII International Workshop on Neutrino Telescopes,” with title “Leptonic CP Violation: Zero, Maximal or between the Two Extremes,” Venice, 6-9 March 2007;**
74. A seminar with title “*Tracing CP-Violating Phases of TeV-scale Theories in the Low Energy Experiments*” at ICTP, Trieste, Italy on 5th of March, 2007;
75. A seminar at “*One Day Workshop on LHC and CMS Physics, 'Future of High Energy Physics'*,” IPM, Tehran October 12, 2006;
76. A seminar at Tabriz University in June 2006;
77. A seminar at “*IPM-LHP06 conference*” at IPM, Tehran in May 2006;
78. A seminar at CERN in April, 2006;
79. A seminar at *SNAC06* in Crans Montana, Switzerland, 25-29 March 2006;
80. A seminar at ICTP, Trieste, Italy in November 2005;
81. A seminar at SISSA, Trieste, Italy in November 2005;
82. A seminar at CERN in March 2005;
83. **A seminar at “40th Rencontres de Moriond on Electroweak Interactions and Unified Theories”, La Thuile, Aosta Valley, Italy, 5-12 Mar 2005**
84. A seminar at ICTP, Trieste, Italy on 22 November of 2004;
85. A seminar at Padova Univ., Italy, November of 2004;
86. **Invited seminar at *ECT* Workshop on Neutrinos and the Early Universe*, Trento, Italy, 4-8 October 2004;**
87. **Invited seminar at Berekley Univ., USA, 25 August 2004;**

88. **A ten minutes talk on “*History and importance of Lorentz invariance*” (given on the occasion of winning a contest proposed in SLAC summer institute, SLAC, USA, 2004. More information may be found at <http://boudin.fnal.gov/NNP/B1798866615/C166714131/E2065884839/>);**
89. ASPEN workshop on neutrinos in 2004;
90. A seminar at “*Weak Interactions and Neutrinos Workshop*” (WIN03) Lake Geneva, Wisconsin, 6-10 October 2003;
91. Four seminars at SLAC, in 2002, 2003 and 2004;
92. A poster presentation at “*Workshop on Neutrino, News from the Lab and the Cosmos,*” Fermilab , Batavia, Illinois, 17-19 October 2002;
93. **A seminar at “*Topic in Astroparticle and Underground Physics*” (TAUP 2001), Gran Sasso, Italy, 8-12 September 2001;**
94. **A seminar at “*Workshop on Neutrino Masses and Mixings,*” Les Houches, France 18-22 June 2001;**
95. **Invited seminar at Helsinki University, Helsinki, Finland, May 2001.**

Selected papers

1. Y. Farzan O.L.G. Peres and A.Yu. Smirnov, “*Neutrino Mass Spectrum and Future Beta Decay Experiments*,” Nucl. Phys. B **612** (2001) 59, **arXiv:hep-ph/0105105**.
2. Y. Farzan and A.Yu. Smirnov, “*Leptonic Unitarity Triangle and CP Violation*,” Phys. Rev. D **65** (2002) 113001, **arXiv:hep-ph/0201105**.
3. Y. Farzan and J. W. F. Valle, “*R-parity violation assisted thermal leptogenesis in the seesaw mechanism*,” Phys. Rev. Lett. **96** (2006) 011601, **hep-ph/0509280**.
4. C. Boehm, Y. Farzan, T. Hambye, S. Palomares-Ruiz and S. Pascoli, “*Are small neutrino masses unveiling the missing mass problem of the universe?*,” Phys. Rev. D **77** (2008) 043516, **arXiv:hep-ph/0612228**.
5. A. Esmaili, Y. Farzan, “*A Novel Method to Extract Dark Matter Parameters from Neutrino Telescope Data*,” JCAP **1104** (2011) 007, **arXiv:1011.0500**.

List of Publication

1. Y. Farzan, O.L.G. Peres and A.Yu. Smirnov, “*Neutrino Mass Spectrum and Future Beta Decay Experiments*,” Nucl. Phys. B **612** (2001) 59, **arXiv:hep-ph/0105105**.
2. Y. Farzan and A.Yu. Smirnov, “*Leptonic Unitarity Triangle and CP Violation*,” Phys. Rev. D **65** (2002) 113001, **arXiv:hep-ph/0201105**.
3. Y. Farzan and A. Yu. Smirnov, “*On the Effective Mass of the Electron Neutrino in Beta Decay*,” Phys. Lett. B **557** (2003) 224, **arXiv:hep-ph/0211341**.
4. Y. Farzan, “*Bounds on the Coupling of the Majoron to Light Neutrinos from Supernova Cooling*,” Phys. Rev. D **67** (2003) 073015, **arXiv:hep-ph/0211375**.
5. Y. Farzan, “*Effects of Neutrino B-term on Slepton Mixing and Electric Dipole Moments*,” Phys. Rev. D **69** (2004) 073009, **arXiv:hep-ph/0310055**.

6. Y. Farzan and M. Peskin, “*The contribution from neutrino Yukawa couplings to lepton electric dipole moments,*” Phys. Rev. D **69** (2004) 073009, **arXiv:hep-ph/0310055**.
7. Y. Farzan, “*Effects of the neutrino B -term on the Higgs mass parameters and electroweak symmetry breaking,*” JHEP **0502** (2005) 025, **arXiv:hep-ph/0411358**.
8. Y. Farzan, G. Gelmini and A. Kusenko, “*Pulsar kicks from Majoron emission,*” Phys. Lett. B **621** (2005) 22, **arXiv:hep-ph/0502150**.
9. D. Demir and Y. Farzan, “*Can Measurements of Electric Dipole Moments Determine the Seesaw Parameters?,*” JHEP **0510** (2005) 068, **arXiv:hep-ph/0508236**.
10. Y. Farzan and J. W. F. Valle, “ *R -parity violation assisted thermal leptogenesis in the seesaw mechanism,*” Phys. Rev. Lett. **96** (2006) 011601, **hep-ph/0509280**.
11. D. Demir and Y. Farzan, “*Correlating μ parameter and right-handed neutrino masses in $N = 1$ supergravity,*” JHEP **0603** (2006) 010, **arXiv:hep-ph/0601096**.
12. S. Y. Ayazi and Y. Farzan, “*Reconciling large CP -violating phases with bounds on the electric dipole moments in the MSSM,*” Phys. Rev. D **74** (2006) 055008, **arXiv:hep-ph/0605272**.
13. Y. Farzan and A. Yu. Smirnov, “*Leptonic CP violation: Zero, maximal or between the two extremes,*” JHEP **0701** (2007) 059, **arXiv:hep-ph/0610337**.
14. C. Boehm, Y. Farzan, T. Hambye, S. Palomares-Ruiz and S. Pascoli, “*Are small neutrino masses unveiling the missing mass problem of the universe?,*” Phys. Rev. D **77** (2008) 043516, **arXiv:hep-ph/0612228**.
15. Y. Farzan, “*Tracing CP -violation in lepton flavor violating muon decays,*” JHEP **0707** (2007) 054, **arXiv:hep-ph/0701106**.
16. S. Y. Ayazi and Y. Farzan, “*Electron electric dipole moment from lepton flavor violation,*” JHEP **06** (2007) 013, **arXiv:hep-ph/0702149**.

17. A. Bandyopadhyay *et al.* [ISS Physics Working Group Collaboration], “*Physics at a future Neutrino Factory and super-beam facility,*” Rept. Prog. Phys. **72** (2009) 106201, **arXiv:0710.4947**.
18. A. Esmaili and Y. Farzan, “*A new class of invariants in the lepton sector,*” Nucl. Phys. B **811** (2009) 98, **arXiv:0711.0448**.
19. Y. Farzan, T. Schwetz and A. Yu. Smirnov, “*Reconciling results of LSND, MiniBooNE and other experiments with soft decoherence,*” JHEP **0807** (2008) 067, **arXiv:0805.2098**.
20. Y. Farzan and A. Yu. Smirnov, “*Coherence and oscillations of cosmic neutrinos,*” Nucl. Phys. B **805** (2008) 356, **arXiv:0803.0495**.
21. Y. Ayazi and Y. Farzan, “*A Window on the CP-violating Phases of MSSM from Lepton Flavor Violating Processes,*” JHEP **0901** (2009) 022, **arXiv:0810.4233**.
22. Y. Farzan, “*Measuring CP-violating phases through studying the polarization of the final particles in $\mu \rightarrow eee,$* ” Phys. Lett. B **677** (2009) 282, **arXiv:0902.2445**.
23. A. Esmaili and Y. Farzan, “*An Analysis of Cosmic Neutrinos: Flavor Composition at Source and Neutrino Mixing Parameters,*” Nucl. Phys. B **821** (2009) 197, **arXiv:0905.0259**.
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