

Vincenzo Cirigliano

Theoretical Division, MS B283
Nuclear and Particle Physics, Astrophysics and Cosmology Group (T-2)
Los Alamos National Laboratory
Los Alamos, NM 87545, USA

Personal Information

- Citizenship: US
- Contact: cirigliano@lanl.gov; TEL: + 1 505 665 2829; FAX: + 1 505 667 1931.

Education

- University of Pisa (Italy)
PhD in Theoretical Physics, 2000; John F. Donoghue (UMass Amherst) supervisor.
Thesis: *New techniques in nonleptonic weak interactions*.
Note: Visiting student at the University of Massachusetts, Amherst (1998 - 2000).
- University of Pisa (Italy)
“Laurea” in Physics, 1996; 110/110 Summa Cum Laude; G. Paffuti supervisor.
Thesis: *Variational study of the vacuum wave functional in gauge theories and statistical models*

Job Experience

- Staff Scientist, Los Alamos National Laboratory (Apr '08 - present).
- Limited Term Staff Member, Los Alamos National Laboratory (Apr '06 - Apr '08).
- Prize post-doctoral fellow, California Institute of Technology (Oct '03 - Apr '06).
- Post-doctoral fellow at the IFIC, University of Valencia, Spain (Oct '01 - Sept '03).
- Post-doctoral fellow at the Institute for Theoretical Physics, University of Vienna, Austria (Oct '00 - Sep '01).

Honors

- APS Fellow, 2013.
- Sherman Fairchild prize Fellows at Caltech (Oct '03 - Apr '06).
- Spanish Ministry of Education postdoctoral Fellowship (Apr '02 - Sept '03).
- EURODAΦNE Fellowship, funded by the European Commission (Oct '00 - Mar '02).
- “Fondazione Angelo Della Riccia (Firenze)” Fellowship (Jan '00 - Aug '00).
- Graduate Fellowship from the Italian Ministry of Education (Jan '97 - Dec '99).

Research Interests

- Low energy probes of electroweak interactions and fundamental symmetries
- Effective field theories: from QCD to physics beyond the Standard Model
- Flavor physics in the quark and lepton sector
- Baryogenesis mechanisms and their experimental probes
- Neutrino physics and astrophysics

Publication Record

- > 50 refereed papers
- $\approx$ 2700 citations (SPIRES)
- 20 papers with over 50 citations, h-index of 33

Service

- Member, Nuclear Science Advisory Committee (2013-2016)
- Member, INT National Advisory Committee (2012-2014)
- Reviewer for DOE Office of Science
- Referee for European Physics Journal C, Journal of High Energy Physics (JHEP), Physical Review D, Physical Review Letters, Physics Letters B, Reviews of Modern Physics.
- Co-organizer, National Nuclear Physics Summer School 2012, July 9-20 2012, Santa Fe (NM), USA.
- Convener, *Kaon Experiments Working Group* at the Fermilab Project X Physics Study, June 13-22 2012, Batavia (IL), USA.
- Co-organizer, Workshop on Neutrinos and Fundamental Symmetries, DNP 2010, November 2-6 2010, Santa Fe (NM), USA.
- Co-organizer, INT program on *Low-energy electroweak precision physics in the LHC era*, Sept 22- Dec 5 2008, Seattle (WA), USA.
- Co-convener, Parallel session on “Low Energy Precision Frontier”, CIPANP 2012, May 29- June 3 2012, S. Petersburg (FL) USA.
- Co-convener of Working Group 1 (“Precision determination of V_{ud} and V_{us} ”) at the *5th International Workshop on the Unitarity Triangle*, Roma, Italy, September 9-13 2008.
- Member of the International Advisory Committee, *KAON 2009*, KEK, Tsukuba (Japan), June 12-16 2009.
- Member of the International Advisory Committee, *International Workshop on Effective Field Theories: from the Pion to the Upsilon*, Valencia, Feb 1-6 2009.
- Co-organizer, *INFO 07, Workshop on the Implications of Neutrino Flavor Oscillations*, Santa Fe (NM), USA, July 2-6 2007.
- Co-convener of Working Group 1 (“Precision determination of V_{ud} and V_{us} ”) at the *4th International Workshop on the Unitarity Triangle*, Nagoya, JP, December 12-16 2006.
- Member of the International Advisory Committee, *KAON 2007*, LNF-INFN, Frascati, May 21-25 2007.

- Co-organizer of the Session on Kaon Physics at *BEACH 2006, The 7th International Conference on Hyperons, Charm And Beauty Hadrons* Lancaster, UK, July 2-8 2006.
- Co-organizer of *Workshop on radiative corrections in B, D, and K meson decays*, UC San Diego, March 14 2005.
- Member of the International Advisory Committee, *KAON 2005*, Northwestern University, Evanston IL, June 13-17 2005.

Students co-supervised

- Ignasi Rosell (Valencia), currently faculty at Universidad Cardenal Herrera, Valencia
- Martín Gonzalez-Alonso (Valencia), currently postdoc at University of Wisconsin
- Paula Tuzon (Valencia), currently postdoc in Medical Physics, Majorca, Spain
- Alberto Filipuzzi (Valencia)

Postdocs co-supervised

- Maurizio Giannotti, currently faculty at Barry University
- James Jenkins, currently staff at LANL, X Division
- Rishi Sharma, currently postdoc at TRIUMF
- Grigol Ovanessian, currently postdoc at LANL
- Emilie Passemar, currently postdoc at LANL

Workshops and Conferences Attended

1. *Intensity Frontier Workshop* Argonne National Laboratory, April 25-27 2013.
Invited Talk : *The model-discriminating power of $\mu \rightarrow e$ conversion in nuclei*
2. *Winter Workshop on EDMs*, Fermilab, February 13-16 2013.
Invited Talk : *EDMs and baryogenesis*
3. *Confinement 2012*, Munich (Germany), October 7-12 2012
Invited Talk : *Beta decays and non-standard interactions in the LHC era*
4. *CKM 2012*, Cincinnati, OH, September 29-October 2 2012
Invited Talk : *Cabibbo universality tests and implications for new physics*
5. *Neutrinos and Fundamental Symmetries Town Hall Meeting*, Chicago, IL, August 9-10 2012
Invited Talk : *In search of the “New Standard Model”: the low-energy frontier*
6. *Chiral Dynamics 2012*, Jefferson Lab, Newport News (VA), August 6-10 2012
Invited Talk : *Status of V_{ud} and V_{us} and implications for new physics*
7. *Project X Physics Study*, Fermilab, June 13-22 2012
Invited Talk : *Kaon Working Group Theory Summary*
8. *STRONGnet Summer School*, Edinburgh, UK, May 28-June 1 2012
Invited Lectures (5) : *Beta decays and non-standard interactions in the LHC era*
9. *Physics Beyond the Standard Model with Nuclear Physics probes*, Madison, Oct 15-17 2011
Invited Talk : *Beta decays in the LHC era*

10. *BLV 2011, International Workshop on Baryon and Lepton Number Violation*, Gatlinburg, TN, Sept 21-24 2011
Invited Talk : *Resonant Flavor Oscillations in Electroweak Baryogenesis*
11. *Astrophysical Transients: Multi-messenger Probes of Nuclear Physics*, Institute for Nuclear Theory, July 11- Aug 5 2011
Invited Talk : *A low-energy effective theory for the neutron star crust*
12. *Workshop on Electroweak Baryogenesis in the era of the LHC*, Weizmann Institute, Rehovot, Israel, May 1-8 2011.
Invited Talk : *Resonant Flavor Oscillations in Electroweak Baryogenesis*
13. *Amherst phenomenology workshop*, Amherst (MA), Oct 22-23 2010.
Invited Talk : *Lepton Flavor Violation: an Effective Field Theory perspective*
14. *NuTheme, Workshop on neutrino theory*, CERN, Geneva (Switzerland), Sept 13-21 2010.
Invited Talk : *Lepton Flavor Violation: an Effective Field Theory perspective*
15. *Workshop on out-of-equilibrium quantum fields in the early universe*, Aachen (Germany), Sept 6-8 2010.
Invited Talk : *Flavored quantum Boltzmann equations for electroweak baryogenesis*
16. *INPC 2010, International Nuclear Physics Conference*, Vancouver (Canada), July 5-9 2010.
Invited Talk : *Progress in weak scale baryogenesis*
17. *NNPSS-TSI 2010 (Joint National Nuclear Physics Summer School and TRIUMF Summer Institute)*, Vancouver, June 21-July 2 2010.
Invited Lecture : *Effective Field Theories Beyond the Standard Model*
18. *FPCP 2010, International conference on flavor physics and CP violation*, Torino (Italy), May 25-29 2010.
Invited Talk: *Lepton Flavor Violation: an Effective Field Theory perspective*
19. *NA62 Physics Handbook Meeting*, CERN, Geneva (Switzerland), Dec 10-11 2009.
Invited Talk : *Probing the Standard Model and beyond with semileptonic K decays*
20. *HAW 09, Joint meeting of the Divisions of Nuclear Physics of the American Physical Society and the Japanese Physical Society*, Waikoloa, HI, October 13-17 2009.
Invited Talk : *Probing physics beyond the Standard Model with nuclei, neutrons, mesons, and muons.*
21. *Conference on the Intersections of Particle and Nuclear Physics*, San Diego, CA, May 26-31 2009.
Invited Talk : *Theory of rare pion and kaon decays*
22. *Fermilab Academic Lectures 2009*, Fermilab, Batavia, IL, May 2009.
Invited Lectures (3) : *Kaons as laboratories for fundamental physics*
23. *Workshop on Hints of New Physics in Flavor Decays*, KEK, Japan, March 2009.
Invited Talk : *Probing new physics with semi-leptonic kaon decays*
24. *Muon Physics in the LHC Era*, Seattle (WA), USA, October 27-29 2008
Invited Talk : *On the model discriminating power of mu-to-e conversion in nuclei*
25. *COSMO 08*, Madison (WI), USA, August 25-29 2008
Invited Talk : *Weak scale baryogenesis and its experimental probes*

26. *Heavy Quarks and Leptons 2008*, Melbourne, Australia, June 5-9 2008
Invited Talk : *Leptogenesis in a minimally flavor violating world*
27. *Melbourne Neutrino Theory Workshop*, Melbourne, Australia, June 2-4 2008
Invited Talk : *Naturalness bounds on neutrino magnetic moments*
28. *2nd Project X Physics Workshop*, Fermilab, Batavia (IL), USA, January 25-26 2008
Invited Talk : *Minimal Flavor Violation in the Lepton Sector*
29. *Gordon Research Conference in Nuclear Physics*, Newport (RI), USA, July 15-20 2007
Invited Talk : *Theoretical progress in electroweak baryogenesis*
30. *INFO 07*, Santa Fe (NM), USA, July 2-6 2007
Invited Talk : *Leptogenesis with Minimal Flavor Violation*
31. *KAON 07*, Frascati (Italy), May 21-25 2007
Invited Talk : *Precision tests of the Standard Model with $K_{\ell 3}$ decays.*
32. *INT Workshop on EDMs and CP Violation*, Seattle, WA, March 19-23 2007
Invited Talk : *Lepton Flavor Violation, CP Violation and Leptogenesis*
33. *4th International Workshop on the CKM Matrix and the Unitarity Triangle*, Nagoya, JP, December 12-16 2006
Summary Talk : *Precision determination of V_{ud} and V_{us}*
34. *5th International Workshop on Chiral Dynamics, Theory and Experiment*, Chapel Hill (NC), September 17-22 2006
Invited Talk : *Status of the Cabibbo angle*
35. *LNF Spring Institute 2006*, Frascati (Italy), July 2-15 2006
Invited Talk : *CP violation and leptogenesis in models with minimal lepton flavor violation*
36. *Flavor Physics and CP Violation 2006*, Vancouver (BC), April 9-12 2006
Invited Talk : *Radiative Corrections in K , D , and B meson decays*
37. *PANIC 05*, Santa Fe (NM), October 24-28 2005
Contributed Talks : *Factorization in exclusive semileptonic radiative B decays; Minimal Lepton Flavor Violation*
38. *Theoretical Problems in Fundamental Neutron Physics*, University of South Carolina, Columbia SC, October 14-15 2005.
Invited Talk : *V_{us} phenomenology: successes and challenges*
39. *KAON 2005*, Northwestern University, Evanston IL, June 13-17 2005.
Invited Talk : *Theoretical issues in the extraction of V_{ud} from neutron decay and V_{us} from K decays*
40. *CKM2005, Workshop on the Unitarity Triangle*, UC San Diego, March 15-18 2005
Invited Talk : *Kaon form factors and radiative corrections from Chiral Perturbation Theory*
41. *DPF04*, Riverside (CA), August 27-31 2004
Contributed Talks : *Neutrinoless double beta decay and lepton flavor violation; Towards a large- N_C estimate of the p^6 constants of Chiral Perturbation Theory*
42. *Matching light quarks to hadrons*, Benasque (Spain), July 25 - August 7 2004
43. *From Zero to Z^0 : Precision Electroweak Physics*, Fermilab, May 12-14 2004
Invited Talk : *Status of V_{us} phenomenology*

44. *Precision Measurements with Slow Neutrons*, NIST, Gaithersburg, April 5-7 2004
Contributed Talk : V_{us} , V_{ud} , and CKM Unitarity
45. *VI Topical Seminar on Subnuclear Physics*, Roma (Italy), December 12 2003
Invited Talk : *Status of V_{us} phenomenology*
46. *International Europhysics Conference on High-Energy Physics* (HEP 2003), Aachen (Germany), July 17-23 2003
Invited Talk : *Theoretical status of CP violation in Kaon decays*
47. *The CKM Unitarity Triangle*, Second Meeting, IPPP Durham, April 5-9 2003
Invited Talk : *Recent progress on the extraction of V_{ud} and V_{us} from meson decays*
48. *XXXVIII Rencontres de Moriond: Electroweak Interactions and Unified Theories*, Les Arcs (France), March 15-22 2003
Invited Talk : *$K_{\ell 3}$ and $\pi_{e 3}$ decays: radiative corrections and CKM unitarity*
49. *Charged Kaon Physics at NA48/2*, CERN (Switzerland), November 19 2002
Invited Talk : *V_{us} from $K_{\ell 3}$ decays*
50. *I EURIDICE Collaboration Meeting*, Frascati (Italy), October 18-20 2002
Contributed Talk : *Electroweak Penguin contribution to ϵ'/ϵ*
51. *QCD02*, International Conference on QCD, Montpellier (France), July 2-9 2002
Contributed Talk : *$K \rightarrow \pi\pi$ Electroweak Penguins in the Chiral Limit*
52. *DPF02*, Williamsburg (VA), May 24-28 2002
Contributed Talk : *$|V_{us}|$ and $|V_{ud}|$ from Semileptonic Decays of K and π*
53. *Hadronic Contributions to the Muon $g - 2$* , Marseille (France), March 14-16 2002
Invited Talk : *Relating $\tau \rightarrow \pi\pi\nu_\tau$ to $e^+e^- \rightarrow \pi^+\pi^-$ in Presence of Isospin Breaking*
54. *Effective Field Theories of QCD*, 264th International WE-Heraeus Seminar, Bad Honnef (Germany), November 26-30 2001
Invited Talk : *Radiative Corrections to K_{l3} Decays*
55. *International Europhysics Conference on High-Energy Physics* (HEP 2001), Budapest (Hungary), July 12-18 2001
Contributed Talk : *Isospin Violation and the Magnetic Moment of the Muon*
56. *KAON2001*, International Conference on CP Violation, Pisa (Italy), June 12-17 2001
57. *XI EURODAΦNE Collaboration Meeting*, Marseille (France), February 8-10 2001
Contributed Talk : *Radiative Corrections to K_{l3} Decays: Status Report*
58. *Triangle Meeting '00*, Vienna (Austria), December 1-2 2000
Contributed Talk : *Dimension Eight Operators in the Weak OPE*
59. *Quantum [Un]speakables* (Conference in Commemoration of J. S. Bell), Vienna (Austria), November 10-14 2000
60. *Chiral Dynamics: Theory and Experiment*, Newport News (VA), July 17-22 2000
Contributed Talk : *Electromagnetic corrections to $K \rightarrow \pi\pi$ and Dispersive Matching*
61. *IX EURODAΦNE Collaboration Meeting and LNF Spring School in Nuclear and Subnuclear Physics*, Frascati (Italy), April 12-17 1999

Seminars

- *WIMP-nucleus scattering in chiral effective theory*,
 - LBL theory seminar, April 2013.
 - University of New Mexico, March 2013.
 - University of Chicago, EFI theory seminar, March 2013.
 - INT, University of Washington, February 2013.
 - University of Cincinnati, February 2013.
- *Beta decays and non-standard interactions in the LHC era*,
 - Oakridge National Laboratory, Physics Division, December 2012.
 - UC Irvine, November 2012.
 - P-25 seminar, Los Alamos Physics Division, April 2012.
 - University of Massachusetts Theory Seminar, February 2012.
- *Flavor Oscillations and Electroweak Baryogenesis*,
 - MIT, Cambridge, MA, March 2011.
- *Charged Lepton Flavor Violation: an Effective Theory Perspective*,
 - University of Valencia, Spain, June 2010.
 - University of New Mexico, Albuquerque, December 2010.
- *Precision Electroweak Physics with Light Quarks*,
 - Lawrence Berkeley National Laboratory, November 2009.
 - LANL T-2 Colloquium, Los Alamos National Laboratory, February 2009.
- *Probing the Standard Model with (semi)-leptonic meson decays*,
 - Jefferson Lab Theory Seminar, October 2007
 - Brookhaven National Laboratory, Theory Seminar, November 2007
- *Minimal Flavor Violation: from quarks to leptons*,
 - University of Vienna, Theory Seminar, September 2008.
 - University of Wisconsin Madison, Theory Seminar, April 2008.
 - University of Massachusetts Theory Seminar, March 2007.
 - Harvard Phenomenology Seminar, March 2007.
 - P-25 seminar, Los Alamos Physics Division, November 2006.
 - NPP seminar, Los Alamos Theoretical Division, December 2006.
- *Status of the Cabibbo angle*,
 - T-16 seminar, Los Alamos Theory Division, September 2006.
- *Minimal Lepton Flavor Violation*,
 - INT, University of Washington, January 2006.
 - University of Roma Tre (Italy), November 2005.
 - INFN, Laboratori Nazionali di Frascati (Italy), July 2005.
- *Electroweak Baryogenesis and its experimental tests*,
 - T-16 seminar, Los Alamos Theory Division, December 2005.
- *Low energy probes of fundamental physics*,
 - T-16 seminar, Los Alamos Theory Division, June 2005.
- *Neutrinoless double beta decay and lepton flavor violation*,
 - Fermilab Theory Group, March 2005.
 - High Energy Physics Seminar, California Institute of Technology, October 2004.

- *Resonant relaxation in electroweak baryogenesis*,
- MIT, Center for Theoretical Physics, February 2005.
- *Weak interactions of light quarks: the Standard Model and beyond*,
- Ohio University Physics Colloquium, February 2005.
- *Lepton flavor violation without supersymmetry*,
- Kellogg Seminar, California Institute of Technology, April 2004.
- *Open Issues in $K \rightarrow \pi\pi$ decays: CP violation and beyond*,
- INFN, Laboratori Nazionali di Frascati (Italy), December 2003.
- *Precision determination of V_{us} from K_{e3} decays*,
- Kellogg Seminar, California Institute of Technology, October 2003.
- *$K \rightarrow \pi\pi$ electroweak penguins in the chiral limit*,
- University of Vienna (Austria), February 2002;
- University of Zürich (Switzerland), February 2002;
- University Autònoma of Barcelona (Spain), January 2002;
- IFIC, University of Valencia (Spain), November 2001.
- *Electromagnetic corrections to semileptonic processes at low energy*,
- University of Granada (Spain), December 2001.
- *Dispersive calculation of electroweak penguin matrix elements*,
- University of Vienna (Austria), May 2001.
- *Radiative corrections to $K \rightarrow \pi\pi$ decays*,
- University of Lund (Sweden), January 2001;
- University of Bern (Switzerland), December 2000;
- University of Vienna (Austria), October 2000;
- INFN, Laboratori Nazionali di Frascati (Italy), January 2000;
- University of Dortmund (Germany), January 2000.
- *Electromagnetic effects in $K \rightarrow \pi\pi$ decays*,
- INFN, Laboratori Nazionali di Frascati (Italy), December 1998.

Publications

Articles

1. Title : *Low-energy probes of physics beyond the Standard Model*
Authors : V. Cirigliano and M. J. Ramsey-Musolf
Journal : To appear in PPNP, arXiv:1304.0017 [hep-ph].
2. Title : *Beta decays and non-standard interactions in the LHC era*
Authors : V. Cirigliano, S. Gardner, B. R. Holstein
Journal : To appear in PPNP, arXiv:1303.6953 [hep-ph].
3. Title : *Non-standard Charged Current Interactions: beta decays versus the LHC*
Authors : V. Cirigliano, M. Gonzalez-Alonso, and M. L. Graesser
Journal : JHEP **1302** (2013) 046, arXiv:1210.4553 [hep-ph].
4. Title : *WIMP-nucleus scattering in chiral effective theory*
Authors : V. Cirigliano, M. L. Graesser and G. Ovanessian
Journal : JHEP **1210** (2012) 025, arXiv:1205.2695 [hep-ph].
5. Title : *Proto-Neutron Star Cooling with Convection: The Effect of the Symmetry Energy*
Authors : L. F. Roberts, G. Shen, V. Cirigliano, J. A. Pons, S. Reddy and S. E. Woosley
Journal : Phys. Rev. Lett. **108**, 061103 (2012), arXiv:1112.0335 [astro-ph.HE].
6. Title : *Probing Novel Scalar and Tensor Interactions from (Ultra)Cold Neutrons to the LHC*
Authors : T. Bhattacharya, V. Cirigliano, S. D. Cohen, A. Filipuzzi, M. Gonzalez-Alonso, M. L. Graesser, R. Gupta and H. -W. Lin.
Journal : Phys. Rev. D **85** (2012) 054512, arXiv:1110.6448 [hep-ph]
7. Title : *Kaon Decays in the Standard Model*
Authors : V. Cirigliano, G. Ecker, H. Neufeld, A. Pich and J. Portoles.
Journal : Rev. Mod. Phys. **84** (2012) 399, arXiv:1107.6001 [hep-ph]
8. Title : *Resonant Flavor Oscillations in Electroweak Baryogenesis*
Authors : V. Cirigliano, C. Lee and S. Tulin.
Journal : Phys. Rev. D **84**, 056006 (2011), arXiv:1106.0747 [hep-ph]
9. Title : *A low energy theory for superfluid and solid matter and its application to the neutron star crust*
Authors : V. Cirigliano, S. Reddy and R. Sharma.
Journal : Phys. Rev. C **84**, 045809 (2011), arXiv:1102.5379 [nucl-th]
10. Title : *A note on isospin violation in $P_{\ell 2(\gamma)}$ decays*
Authors : V. Cirigliano and H. Neufeld.
Journal : Phys. Lett. B **700**, 7 (2011), arXiv:1102.0563 [hep-ph]
11. Title : *An Evaluation of $|V_{us}|$ and precise tests of the Standard Model from world data on leptonic and semileptonic kaon decays*
Authors : M. Antonelli, V. Cirigliano, G. Isidori, F. Mescia, M. Moulson, H. Neufeld, E. Passemar and M. Palutan *et al.*
Journal : Eur. Phys. J. C **69**, 399 (2010), arXiv:1005.2323 [hep-ph]

12. Title : *Flavored Quantum Boltzmann Equations*
 Authors : V. Cirigliano, C. Lee, M. J. Ramsey-Musolf and S. Tulin
 Journal : Phys. Rev. D **81**, 103503 (2010), arXiv:0912.3523 [hep-ph].
13. Title : *Semileptonic decays of light quarks beyond the Standard Model*
 Authors : V. Cirigliano, J. Jenkins, M. Gonzalez-Alonso
 Journal : Nucl. Phys. **B 830** (2010) 95, arXiv 0908.1754 [hep-ph].
14. Title : *MSSM baryogenesis and electric dipole moments: an update on the phenomenology*
 Authors : V. Cirigliano, Y. Li, S. Profumo, M. Ramsey-Musolf
 Journal : JHEP **1001** (2010) 002, arXiv 0910.4589 [hep-ph].
15. Title : *Reanalysis of pion pion phase shifts from $K \rightarrow \pi\pi$ decays*
 Authors : V. Cirigliano, G. Ecker, A. Pich
 Journal : Phys. Lett. **B 679**, 445-448, 2009, arXiv 0907.1451 [hep-ph].
16. Title : *On the model discriminating power of μ -to- e conversion in nuclei*
 Authors : V. Cirigliano, R. Kitano, Y. Okada, P. Tuzon
 Journal : Phys. Rev. D **80** (2009) 013002, arXiv 0904.0957 [hep-ph].
17. Title : *The Impact of Neutrino Magnetic Moments on the Evolution of Massive Stars*
 Authors : V. Cirigliano, A. Friedland, M. Giannotti, A. Heger,
 Journal : Astrophys.J. 696: 608-619, 2009, arXiv 0809.4703 [astro-th].
18. Title : *Superfluid Heat Conduction and the Cooling of Magnetized Neutron Stars*
 Authors : D. .N. Aguilera, V. Cirigliano, J. A. Pons, S. Reddy, R. Sharma
 Journal : Phys. Rev. Lett. **102** (2009) 091101, arXiv 0807.4754 [nucl-th].
19. Title : *Electromagnetic effects in $K_{\ell 3}$ decays*
 Authors : V. Cirigliano, M. Giannotti, H. Neufeld
 Journal : JHEP **0811** (2008) 006, arXiv 0807.4507 [hep-ph].
20. Title : *Quantum Resonant Leptogenesis and Minimal Lepton Flavor Violation*
 Authors : V. Cirigliano, A. De Simone, G. Isidori, I. Masina, A. Riotto
 Journal : JCAP **0801** (2008) 004 , arXiv 0711.0778 [hep-ph].
21. Title : *$\pi \rightarrow e\nu$ and $K \rightarrow e\nu$ decays to $O(e^2 p^4)$ in Chiral Perturbation Theory*
 Authors : V. Cirigliano and I. Rosell
 Journal : JHEP **0710** (2007) 005, arXiv 0707.4464 [hep-ph].
22. Title : *Two-loop effective theory analysis of $\pi(K) \rightarrow e\bar{\nu}[\gamma]$ branching ratios*
 Authors : V. Cirigliano and I. Rosell
 Journal : Phys. Rev. Lett. **99** (2007) 231801, arXiv 0707.3439 [hep-ph]
23. Title : *Grand Unification and the principle of Minimal Flavor Violation*
 Authors : V. Cirigliano, B. Grinstein, G. Isidori, M. B. Wise
 Nucl. Phys. **B 763** (2007) 35 [arXiv:hep-ph/0608123].
24. Title : *CP violation and Leptogenesis in models with Minimal Lepton Flavour Violation*
 Authors : V. Cirigliano, G. Isidori, V. Porretti
 Reference : Nucl. Phys. **B 763** (2007) 228 [arXiv:hep-ph/0607068].
25. Title : *Baryogenesis, electric dipole moments and dark matter in the MSSM*
 Authors : V. Cirigliano, S. Profumo and M. J. Ramsey-Musolf
 Journal : JHEP **0607** (2006) 002 [arXiv:hep-ph/0603246].

26. Title : *Towards a consistent estimate of the chiral low-energy constants*
 Authors : V. Cirigliano, G. Ecker, M. Eidemuller, R. Kaiser, A. Pich and J. Portoles
 Journal : Nucl. Phys. **B 753** (2006) 139 [arXiv:hep-ph/0603205].
27. Title : *Yukawa and tri-scalar processes in electroweak baryogenesis*
 Authors : V. Cirigliano, M. J. Ramsey-Musolf, S. Tulin and C. Lee
 Journal : Phys. Rev. D **73** (2006) 115009 [arXiv:hep-ph/0603058].
28. Title : *Phenomenology of Minimal Lepton Flavor Violation*
 Authors : V. Cirigliano and B. Grinstein
 Journal : Nucl. Phys. **B 752** (2006) 18 [arXiv:hep-ph/0601111].
29. Title : *Factorization in exclusive semileptonic radiative B decays*
 Authors : V. Cirigliano and D. Pirjol
 Journal : Phys. Rev. D **72** (2005) 094021 [arXiv:hep-ph/0508095]
30. Title : *Minimal Flavor Violation in the lepton sector*
 Authors : V. Cirigliano, B. Grinstein, G. Isidori, M. B. Wise
 Journal : Nucl. Phys. **B 728** (2005) 121 [arXiv:hep-ph/0507001]
31. Title : *How magnetic is the Dirac neutrino?*
 Authors : N. F. Bell, V. Cirigliano, M. J. Ramsey-Musolf, P. Vogel and M. B. Wise
 Journal : Phys. Rev. Lett. **95** (2005) 151802 [arXiv:hep-ph/0504134]
32. Title : *The $\langle SPP \rangle$ Green Function and $SU(3)$ breaking in $K_{\ell 3}$ decays*
 Authors : V. Cirigliano, G. Ecker, M. Eidemuller, R. Kaiser, A. Pich and J. Portoles
 Journal : JHEP **0504** (2005) 006 [arXiv:hep-ph/0503108]
33. Title : *Resonant relaxation in electroweak baryogenesis*
 Authors : C. Lee, V. Cirigliano and M. J. Ramsey-Musolf
 Journal : Phys. Rev. D **71** (2005) 075010 [arXiv:hep-ph/0412354]
34. Title : *Neutrinoless double beta decay and lepton flavor violation*
 Authors : V. Cirigliano, A. Kurylov, M. J. Ramsey-Musolf and P. Vogel
 Journal : Phys. Rev. Lett. **93** (2004) 231802 [arXiv:hep-ph/0406199]
35. Title : *Lepton flavor violation without supersymmetry*
 Authors : V. Cirigliano, A. Kurylov, M. J. Ramsey-Musolf and P. Vogel
 Journal : Phys. Rev. D **70** (2004) 075007 [arXiv:hep-ph/0404233]
36. Title : *The $\langle VAP \rangle$ Green function in the resonance region*
 Authors : V. Cirigliano, G. Ecker, M. Eidemuller, A. Pich and J. Portoles
 Journal : Phys. Lett. B **596** (2004) 96 [arXiv:hep-ph/0404004]
37. Title : *K_{e3} decays and CKM unitarity*
 Authors : V. Cirigliano, H. Neufeld and H. Pichl
 Journal : Eur. Phys. J. C **35** (2004) 53 [arXiv:hep-ph/0401173]
38. Title : *Isospin breaking in $K \rightarrow \pi\pi$ decays*
 Authors : V. Cirigliano, G. Ecker, H. Neufeld and A. Pich
 Journal : Eur. Phys. J. C **33** (2004) 369 [arXiv:hep-ph/0310351]
39. Title : *Isospin violation in ϵ'*
 Authors : V. Cirigliano, G. Ecker, H. Neufeld and A. Pich
 Journal : Phys. Rev. Lett. **91** (2003) 162001 [arXiv:hep-ph/0307030]
40. Title : *Meson resonances, large N_c and chiral symmetry*
 Authors : V. Cirigliano, G. Ecker, H. Neufeld and A. Pich
 Journal : JHEP **0306** (2003) 012 [arXiv:hep-ph/0305311]

41. Title : *QCD condensates for the light quark V-A correlator*
 Authors : V. Cirigliano, E. Golowich and K. Maltman
 Journal : Phys. Rev. D **68** (2003) 054013 [arXiv:hep-ph/0305118]
42. Title : *Improved determination of the electroweak penguin contribution to ϵ'/ϵ in the chiral limit*
 Authors : V. Cirigliano, J. F. Donoghue, E. Golowich and K. Maltman
 Journal : Phys. Lett. B **555** (2003) 71 [arXiv:hep-ph/0211420]
43. Title : *The pionic beta decay in chiral perturbation theory*
 Authors : V. Cirigliano, M. Knecht, H. Neufeld, H. Pichl
 Journal : Eur. Phys. J. C **27** (2003) 255 [arXiv:hep-ph/0209226]
44. Title : *Radiative τ decay and the magnetic moment of the muon*
 Authors : V. Cirigliano, G. Ecker and H. Neufeld
 Journal : JHEP **0208** (2002) 002 [arXiv:hep-ph/0207310]
45. Title : *Radiative corrections to K_{l3} decays*
 Authors : V. Cirigliano, M. Knecht, H. Neufeld, H. Rupertsberger, P. Talavera
 Journal : Eur. Phys. J. C **23** (2002) 121 [arXiv:hep-ph/0110153]
46. Title : *Comment on 'Analysis of $\mathcal{O}(p^2)$ corrections to $\langle \pi\pi | Q_{7,8} | K \rangle$ '*
 Authors : V. Cirigliano and E. Golowich
 Journal : Phys. Rev. D **65** (2002) 054014 [arXiv:hep-ph/0109265]
47. Title : *Determination of $\langle (\pi\pi)_{(I=2)} | Q_{7,8} | K^0 \rangle$ in the chiral limit*
 Authors : V. Cirigliano, J. F. Donoghue, E. Golowich and K. Maltman
 Journal : Phys. Lett. B **522** (2001) 245 [arXiv:hep-ph/0109113]
48. Title : *Isospin violation and the magnetic moment of the muon*
 Authors : V. Cirigliano, G. Ecker and H. Neufeld
 Journal : Phys. Lett. B **513** (2001) 361 [arXiv:hep-ph/0104267]
49. Title : *$K \rightarrow \pi\pi$ phenomenology in the presence of electromagnetism*
 Authors : V. Cirigliano, J.F. Donoghue and E. Golowich
 Journal : Eur. Phys. J. C **18** (2000) 83 [arXiv:hep-ph/0008290]
50. Title : *Dimension eight operators in the weak OPE*
 Authors : V. Cirigliano, J.F. Donoghue and E. Golowich
 Journal : JHEP **0010** (2000) 048 [arXiv:hep-ph/0007196]
51. Title : *Analysis of $\mathcal{O}(p^2)$ corrections to $\langle \pi\pi | Q_{7,8} | K \rangle$*
 Authors : V. Cirigliano and E. Golowich
 Journal : Phys. Lett. B **475** (2000) 351 [arXiv:hep-ph/9912513]
52. Title : *Electromagnetic corrections to $K \rightarrow \pi\pi$ II : Dispersive Matching*
 Authors : V. Cirigliano, J.F. Donoghue and E. Golowich
 Journal : Phys. Rev. D **61** (2000) 093002 [arXiv:hep-ph/9909473]
53. Title : *Electromagnetic corrections to $K \rightarrow \pi\pi$ I : Chiral Perturbation Theory*
 Authors : V. Cirigliano, J.F. Donoghue and E. Golowich
 Journal : Phys. Rev. D **61** (2000) 093001 [arXiv:hep-ph/9907341]
54. Title : *The leading chiral electromagnetic correction to the nonleptonic $\Delta I = 3/2$ amplitude in kaon decays*
 Authors : V. Cirigliano, J.F. Donoghue and E. Golowich
 Journal : Phys. Lett. B **450** (1999) 241

55. Title : *Magnetic Monopoles in $U(1)_4$ Lattice Gauge Theory with Wilson Action*
 Authors : V. Cirigliano and G. Paffuti
 Journal : Commun. Math. Phys. **200** (1999) 381 [arXiv:hep-th/9707219]

Conference Proceedings

1. Title : *Theory of rare kaon and pion decays*
 Authors : V. Cirigliano.
 Reference : AIP Conf. Proc. **1182**, 648 (2009).
2. Title : *Precision tests of the Standard Model with leptonic and semileptonic kaon decays*
 Authors : FlaviaNet Working Group on Kaon Decays (Mario Antonelli et al.).
 Reference : e-Print: arXiv:0801.1817 [hep-ph]
3. Title : *$\pi\pi$ phase shifts from $K \rightarrow \pi\pi$*
 Authors : V. Cirigliano, C. Gatti, M. Moulson, M. Palutan
 Reference : e-Print: arXiv:0807.5128 [hep-ph]
4. Title : *Precision tests of the Standard Model with $K_{\ell 3}$ decays*
 Authors : V. Cirigliano
 Reference : PoS (KAON): 007, 2007, Frascati (Italy), May 21-25 2007.
5. Title : *Status of the Cabibbo angle*
 Authors : V. Cirigliano
 Reference : In the Proceedings of the 5th International Workshop on Chiral Dynamics, Theory and Experiment, Chapel Hill (NC), September 17-22 2006
6. Title : *Radiative corrections in K , D , and B decays*
 Authors : V. Cirigliano
 Reference : In the Proceedings of 4th Flavor Physics and CP Violation Conference (FPCP 2006), Vancouver, British Columbia, Canada, 9-12 Apr 2006, pp 037. [arXiv:hep-ph/0606020].
7. Title : *Magnetic Moments of Dirac Neutrinos*
 Authors : N. F. Bell, V. Cirigliano, M. J. Ramsey-Musolf, P. Vogel and M. B. Wise
 Reference : Published in AIP Conf.Proc.842:874-876,2006. Also in *Santa Fe 2005, Particles and nuclei* 874-876 [arXiv:hep-ph/0601005]
8. Title : *Status of the Cabibbo angle*
 Authors : E. Blucher *et al.*
 Reference : arXiv:hep-ph/0512039
9. Title : *Neutrinoless double beta decay and lepton flavor violation*
 Authors : V. Cirigliano
 Reference : Int.J.Mod.Phys.A20:3340-3342,2005
10. Title : *Towards a large- $N(c)$ estimate of the $O(p^6)$ chiral low energy constants.*
 Authors : V. Cirigliano
 Reference : Int.J.Mod.Phys.A20:3732-3734,2005
11. Title : *Theoretical status of CP violation in Kaon decays $[\epsilon'/\epsilon]$*
 Authors : V. Cirigliano
 Reference : Eur. Phys. J. C Direct (2003), DOI: 10.1140/epjcd/s2003-03-302-3

12. Title : *Recent progress on the extraction of V_{ud} and V_{us} from meson decays*
 Authors : V. Cirigliano
 Reference : eConf **C0304052** (2003) WG603.
13. Title : *ϵ'/ϵ and the electroweak penguin contribution*
 Authors : V. Cirigliano, J. F. Donoghue, E. Golowich, and K. Maltman
 Reference : Published in *Amsterdam 2002, ICHEP* 462-464
14. Title : *The Chiral Limit $K \rightarrow \pi\pi$ Matrix Elements Of The Electroweak Penguin Operators $Q_{7,8}$*
 Authors : K. Maltman, V. Cirigliano, J. F. Donoghue, and E. Golowich
 Reference : Mod. Phys. Lett. A **18** (2003) 366
15. Title : *K_{e3} and π_{e3} decays: radiative corrections and CKM unitarity*
 Authors : V. Cirigliano
 Reference : In *Moriond Electroweak 2003* 437-444 [arXiv:hep-ph/0305154]
16. Title : *$K \rightarrow \pi\pi$ electroweak penguins in the chiral limit*
 Authors : V. Cirigliano, J. F. Donoghue, E. Golowich, and K. Maltman
 Reference : Nucl. Phys. Proc. Suppl. **121** (2003) 199 [arXiv:hep-ph/0209332]
17. Title : *Improved determination of $\overline{B}_7$ and $\overline{B}_8$*
 Authors : V. Cirigliano, J. F. Donoghue, E. Golowich, and K. Maltman
 Reference : Published in *Budapest 2001, High energy physics* hep2001/225
18. Title : *Isospin violation and the magnetic moment of the muon*
 Authors : V. Cirigliano, G. Ecker and H. Neufeld
 Reference : Published in *Budapest 2001, High energy physics* hep2001/224 [arXiv:hep-ph/0109286]
19. Title : *Report of the working group on Goldstone Bosons*
 Authors : J. Bijnens et al.
 Reference : Published in *Chiral Dynamics: Theory and Experiment III*, Singapore, World Scientific, 2001 [arXiv:hep-ph/0012020]

Reports

1. Title : *Flavor Physics in the Quark Sector*
 Authors : M. Antonelli, D. M. Asner, D. A. Bauer, T. G. Becher, M. Beneke, A. J. Bevan, M. Blanke and C. Bloise *et al.*
 Reference : Phys. Rept. **494**, 197 (2010), arXiv:0907.5386 [hep-ph]
2. Title : *The CKM matrix and the unitarity triangle*
 Editors : M. Battaglia, A. J. Buras, P. Gambino and A. Stocchi
 Reference : CERN Yellow Report CERN-2003-002, arXiv:hep-ph/0304132.