

# Curriculum Vitae

Nikolaos Tetradis

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## Educational Background

- PhD in Physics, Stanford University, California USA, August 1991.  
*Thesis Title: Aspects of the dark matter problem – Fermion balls.*  
*Thesis Advisor: Prof. S. Dimopoulos.*
- MSc in Physics, Stanford University, California USA, June 1987.
- BSc in Physics, University of Athens, Greece, June 1986.

## **Permanent Positions**

- Professor, Department of Physics, University of Athens, Greece, February 2012 – present.
- Associate Professor, Department of Physics, University of Athens, Greece, March 2002 – February 2012.

## **Other Positions**

- Corresponding Associate, CERN, Theory Division, Switzerland, September 2018 – October 2018.
- Corresponding Associate, CERN, Theory Division, Switzerland, July 2017 – October 2017.
- Corresponding Associate, CERN, Theory Division, Switzerland, April 2016 – September 2016.
- Scientific Associate, CERN, Theory Division, Switzerland, June 2013 – August 2014.
- Visiting Professor, Department of Physics, Stanford University, U.S.A., October 2008 – June 2009.
- Visiting Associate Professor (P.D. 407), Department of Physics, University of Crete, Greece, March 2000 – February 2002.

## **Postdoctoral Positions**

- E.C. Fellow, Nuclear and Particle Physics Section, University of Athens, Greece, October 1999 – September 2000.
- Postdoctoral Fellow (TMR Network: Physics beyond the Standard Model), Scuola Normale Superiore, Pisa, Italy, November 1997 – September 1999.
- CERN Fellow, CERN, Theory Division, Geneva, Switzerland, November 1995 – October 1997.
- E.C. Fellow, Theoretical Physics, University of Oxford, U.K., October 1993 – October 1995.
- Postdoctoral Fellow, Theory Group, DESY, Hamburg, Germany, September 1991 – September 1993.

## Networks, Grants

### International

- Member of the greek node of the Initial Training Network: *UNILHC* (PITN-GA-2009-237920).
- Member of the greek node of the Research Training Network: *UniverseNet* (MRTN-CT-2006-035863).
- Member of the greek node of the Research Training Network: *The Quest for Unification: Theory Confronts Experiment* (MRTN-CT-2004-503369).
- Member of the greek node of the Research Training Network: *Physics Across the Present Energy Frontier: Probing the Origin of Mass* (HPRN-CT-2000-00148).
- Member of the greek node of the Research Training Network: *The Quantum Structure of Spacetime* (HPRN-CT-2000-00131).
- Member of the greek node of the Research Training Network: *Superstring Theory* (HPRN-CT-2000-00122).

### National

- Research Program *Thalis* of the Greek Ministry of Education:
  - Member of the Research Group funded by the Grant MIS-375734 (Ioannina U.) (duration: 5/2012–9/2015)
- Research Program *Pythagoras* of the Greek Ministry of Education:
  - Head of the Research Group funded by the Grant 70/3/7992 (Athens U.) (duration: 1/2005–12/2007)
  - Member of the Research Group funded by the Grant 70/3/7310 (Athens U.) (duration: 1/2004–12/2006)
- Research Program *Kapodistriais* of the University of Athens:
  - Recipient of the Personal Rolling Grant 70/4/6469 (duration: 1/2003 – 12/2012).

## **Fellowships**

- Marie Curie Fellowship, undertaken at the Department of Physics, University of Athens, October 1999 – September 2000.
- Marie Curie Fellowship, undertaken at the Department of Physics, University of Oxford, October 1993 – October 1995.
- Teaching and Research Fellowship during the 5 years of postgraduate studies at Stanford University (1986–1990).

## Research

The work of Nikolaos Tetradis contains 97 papers published in research journals and 21 published contributions to conference proceedings. It has received approximately 4450 citations according to the database INSPIRE (<http://inspirehep.net/>). It includes 1 publication with more than 500 citations, 2 with more than 250 citations, 4 with more than 100, and 12 with more than 50.

## Research areas

- Cosmological perturbations and large scale structure
- Stability of the electroweak vacuum
- Beyond the Standard Model physics
- Dark matter and dark energy
- The exact renormalization group and phase transitions
- Applications of the AdS/CFT correspondence
- Brane physics (phenomenology and cosmology)
- Inhomogeneous cosmology
- Inflation and supersymmetry
- Phase diagram of QCD and heavy ion collisions

## Teaching

- Associate Professor and Professor, Department of Physics, University of Athens: March 2002 – present.

**Undergraduate courses:** Mathematical Methods in Physics, Introduction to Particle Physics, Nuclear Physics Laboratory sessions.

**Graduate courses:** Classical Theory of Fields, Advanced Quantum Mechanics, Elementary Particle Physics.

- Visiting Associate Professor (P.D. 407), Department of Physics, University of Crete: March 2000 – March 2002.

**Undergraduate courses:** Physics I, Physics II.

**Graduate courses:** General Relativity, Cosmology.

- Teaching Assistant for Physics, Stanford University: 1986–1990.

**Undergraduate courses:** Undergraduate Tutoring and Laboratory sessions.

## Ph.D. Students

A. Katsis: *Large-scale structure and the renormalization group* (in progress)

E. Tzavara: *Large-Scale Structure and Cosmological Acceleration* (graduation: October 2009)

N. Brouzakis: *Brane and Quintessence Cosmology* (graduation: October 2008)

## Ph.D. Examiner

- Member of many Ph.D. examination committees in Greek Universities
- Main examiner of Ph.D. theses in Italian Universities (Padova, SISSA)

## **Administration**

- Chairman of the Department of Physics, September 2016 – August 2018
- Graduate Student Selection Committee, Department of Physics, University of Athens
- Graduate Studies Committee, Department of Physics, University of Athens
- Committee for the restructuring of the Master's program, Department of Physics, University of Athens

## **Referee work**

### **Journals**

- Referee for many research journals, including: Advances in High Energy Physics, Central European Journal of Physics, European Physical Journal C, International Journal of Physics A, Journal of Cosmology and Astrophysics (JCAP), Journal of High Energy Physics (JHEP), Journal of Physics A, Modern Physics Letters A, Physica D, Physical Review D, Physical Review Letters, Physics Letters B.

### **Projects**

- Referee of research projects for the General Secretariat of Research and Technology (GGET) of the Greek Ministry of Research
- Referee of research projects for the Greek Institute of State Scholarships (IKY)
- Referee of research projects for the Greek Ministry of Education
- Referee of research projects for the National Science Foundation (NSF), USA
- Referee of research projects for the Comision Nacional de Investigacion Cientifica y Tecnologica (CONICYT), Chile
- Referee of Rresearch projects for the The German Israeli Foundation for Scientific Research and Development (GIF)
- Referee of research projects for the Research Promotion Foundation, Cyprus

## Conference Organization

- International Advisory Committee: *ERG2018: Ninth International Conference on the Exact Renormalization Group*, Paris, France, July 2018.
- International Advisory Committee: *ERG2016: Eighth International Conference on the Exact Renormalization Group*, Trieste, Italy, September 2016.  
<http://indico.ictp.it/event/7608/>
- International Advisory Committee and Chair of the Local Organizing Committee: *ERG2014: Seventh International Conference on the Exact Renormalization Group*, Lefkada, Greece, September 2014.  
<http://erg2014.phys.uoa.gr/>
- International Advisory Committee: *ERG2012: Sixth International Conference on the Exact Renormalization Group*, Aussois, France, September 2012.  
<http://www.congres.upmc.fr/erg2012/>
- International Advisory Committee and Chair of the Local Organizing Committee: *ERG2010: Fifth International Conference on the Exact Renormalization Group*, Corfu, September 2010.  
<http://www.physics.ntua.gr/corfu2010/erg.html>
- Local Organizing Committee: *Neutrino 2010*, Athens, June 2010.  
<http://conferences.phys.uoa.gr/Neutrino2010/>
- International Advisory Committee: *ERG2008: Fourth International Conference on the Exact Renormalization Group*, Heidelberg, Germany, July 2008.  
<http://www.thphys.uni-heidelberg.de/smp/cgi-bin/view/ERG2008/>
- International Advisory Committee and Chair of the Local Organizing Committee: *ERG2006: Third International Conference on the Exact Renormalization Group*, Lefkada, September 2006.  
<http://www.cc.uoa.gr/papost/erg2006.html>
- Organizing Committee: *IDM 2006: 6th International Workshop on the Identification of Dark Matter*, Rhodes, September 2006.

<http://elea.inp.demokritos.gr/index.php?pid=idm2006>

- Local Organizing Committee: *Crete Regional Meeting in String Theory*, Kolymbari, June 2001.

<http://hep.physics.uoc.gr/mideast/>

- Local Organizing Committee: *Superstring Theory Workshop*, Heraklion, April 2001.

<http://hep.physics.uoc.gr/sustring2001/>

- Organizing Committee: *HEP 2001: The Annual Conference of the Hellenic Society for the Study of High Energy Physics*, Heraklion, April 2001.

## Recent Invited Talks and Lectures in International Conferences (2015-18)

- ERG2018: Ninth International Conference on the Exact Renormalization Group, Paris, France, July 2018

*Invited talk: Multicritical points of the  $O(N)$  scalar theory for large  $N$*

- HEP 2017: Conference on Recent Developments in High Energy Physics and Cosmology, Ioannina, Greece, April 2017

*Plenary talk: Effective description of dark matter as a viscous fluid*

- FRG-2017: Functional Renormalization Group, Heidelberg, Germany, March 2017

*Plenary talk: Effective description of dark matter as a viscous fluid*

- NTUA Workshop: Gravitational Waves in Modified Gravity Theories, NTUA, Athens, Greece, September 2016

*Invited talk: Black holes and Higgs stability*

- ERG2016: Eighth International Conference on the Exact Renormalization Group, ICTP, Trieste, Italy, September 2016

*Plenary talk: The exact renormalization group and large-scale structure*

- The Big Bang and the little bangs, CERN Theory Institute, CERN, Geneva, Switzerland, August 2016

*Invited talk: Effective description of dark matter as a viscous fluid*

- String Pheno 2016: 15th Conference in the Series, Ioannina, Greece, June 2016

*Plenary talk: Black holes and Higgs stability*

- Quarks-2016: 19th International Seminar on High Energy Physics, Pushkin, Russia, June 2016

*Invited talk: Effective description of dark matter as a viscous fluid*

- CERN-SEENET-MTP PhD Training Program, Bucharest, Romania, November 2015

*Invited series of lectures: Field theory, renormalization and cosmology*

- COSMO-15: 19th Annual International Conference on Particle Physics and Cosmology, Warsaw, Poland, September 2015

*Plenary talk: Viscous dark matter*

- 14<sup>th</sup> Marcel Grossmann Meeting, Rome, Italy, July 2015

*Invited talk: Viscous dark matter*

- Tamvakis Fest 2015: Beyond the Standard Models of Particle Physics and Cosmology, Ioannina, Greece, May 2015

*Plenary talk: Cosmological perturbations and large-scale structure*

- Origins of Mass 2015: Conference on Recent Developments in High Energy Physics and Cosmology, CP3, Odense, Denmark, May 2015

*Plenary talk: Nonlinear fluctuation spectra for viscous dark matter and heavy ions*

- HEP 2015: Conference on Recent Developments in High Energy Physics and Cosmology, Athens, Greece, April 2015

*Plenary talk: Classical and quantum aspects of Galileon theories*

## List of Publications

- 97) A. Katsis and N. Tetradis, *Multicritical points of the  $O(N)$  scalar theory in  $2 < d < 4$  for large  $N$* , Phys. Lett. B **780**, 491-494 (2018), arXiv:1801.07659 [cond-mat.stat-mech].
- 96) D. Canko, I. Gialamas, G. Jelic-Cizmek, A. Riotto and N. Tetradis, *On the catalysis of the electroweak vacuum decay by black holes at high temperature*, Eur. Phys. J. C **78**, 328 (2018), arXiv:1706.01364 [hep-th].
- 95) A. Joti, A. Katsis, D. Loupas, A. Salvio, A. Strumia, N. Tetradis and A. Urbano, *(Higgs) vacuum decay during inflation*, JHEP **1707**, 058 (2017), arXiv:1706.00792 [hep-ph].
- 94) A. Salvio, A. Strumia, N. Tetradis and A. Urbano, *On gravitational and thermal corrections to vacuum decay*, JHEP **1609**, 054 (2016), arXiv:1608.02555 [hep-ph].
- 93) S. Floerchinger, M. Garny, N. Tetradis and U.A. Wiedemann, *Renormalization-group flow of the effective action of cosmological large-scale structures*, JCAP **1701**, 048 (2017), arXiv:1607.03453 [astro-ph.CO].
- 92) N. Tetradis, *Black holes and Higgs stability*, JCAP **1609**, 036 (2016), arXiv:1606.04018 [hep-ph].
- 91) D. Blas, S. Floerchinger, M. Garny, N. Tetradis and U.A. Wiedemann, *Large scale structure from viscous dark matter*, JCAP **1511**, 049 (2015), arXiv:1507.06665 [astro-ph.CO].
- 90) J.R. Espinosa, G.F. Giudice, E. Morgante, A. Riotto, L. Senatore, A. Strumia and N. Tetradis, *The cosmological Higgstory of the vacuum instability*, JHEP **1509**, 174 (2015),

arXiv:1505.04825 [hep-ph].

89) P. Asimakis, N. Brouzakis, A. Katsis and N. Tetradis, *Quantum corrections in classical theories*, Phys. Lett. B **743**, 75-78 (2015), arXiv:1412.4275 [hep-th].

88) S. Floerchinger, N. Tetradis and U.A. Wiedemann, *Accelerating cosmological expansion from shear and bulk viscosity*, Phys. Rev. Lett. **114**, 9, 091301 (2015), arXiv:1411.3280 [gr-qc].

87) N. Brouzakis, S. Floerchinger, N. Tetradis and U.A. Wiedemann, *Nonlinear evolution of density and flow perturbations on a Bjorken background*, Phys. Rev. D **91**, 6, 065007 (2015), arXiv:1411.2912 [hep-ph].

86) V. Pavlidou, N. Tetradis and T. Tomaras *Constraining dark energy through the stability of cosmic structures*, JCAP **1405**, 017 (2014), arXiv:1401.3742 [astro-ph.CO].

85) N. Brouzakis and N. Tetradis, *Suppression of quantum corrections by classical backgrounds*, Phys. Rev. D **89**, 12, 125004 (2014), arXiv:1401.2775 [hep-th].

84) N. Brouzakis, A. Codello, N. Tetradis and O. Zanusso, *Quantum corrections in Galileon theories*, Phys. Rev. D **89**, 12, 125017 (2014), arXiv:1310.0187 [hep-th].

83) N. Tetradis, *Classical solutions of higher-derivative theories*, Phys. Lett. B **726**, 431-435 (2013), arXiv:1212.6528 [hep-th].

82) A. Codello, N. Tetradis and O. Zanusso, *The renormalization of fluctuating branes, the Galileon and asymptotic safety*, JHEP **1304**, 036 (2013), arXiv:1212.4073 [hep-th].

- 81) J. Rizos and N. Tetradis, *Shock waves as branes with throats*, JHEP **1302**, 112 (2013), arXiv:1210.4730 [hep-th].
- 80) J. Rizos, N. Tetradis and G. Tsolias, *Classicalization as a tunnelling phenomenon*, JHEP **1208**, 054 (2012), arXiv:1206.3785 [hep-th].
- 79) J. Rizos and N. Tetradis, *Dynamical classicalization*, JHEP **1204**, 110 (2012), arXiv:1112.5546 [hep-th].
- 78) N. Brouzakis, J. Rizos and N. Tetradis, *On the dynamics of classicalization*, Phys. Lett. B **708**, 170-173 (2012), arXiv:1109.6174 [hep-th].
- 77) N. Tetradis, *Holographic horizons*, Phys. Rev. D **85**, 046007 (2012) (7 pages), arXiv:1109.2335 [hep-th].
- 76) N. Tetradis, *Entropy from AdS(3)/CFT(2)*, JHEP **1202**, 054 (2012) (23 pages), arXiv:1106.2492 [hep-th].
- 75) N. Lamprou, S. Nonis and N. Tetradis, *New guises of the BTZ black hole*, Class. Quantum Grav. **29**, 025002 (2012) (18 pages), arXiv:1106.1533 [gr-qc].
- 74) N. Brouzakis, V. Pettorino N. Tetradis and C. Wetterich, *Nonlinear matter spectra in growing neutrino quintessence*, JCAP **1103**, 049 (2011) (11 pages), arXiv:1012.5255 [astro-ph].
- 73) P. Apostolopoulos, N. Brouzakis and N. Tetradis, *Effective cosmological equations of  $f(R)$  gravity*, JCAP **1008**, 032 (2010) (18 pages), arXiv:1006.4573 [hep-ph].

- 72) N. Brouzakis and N. Tetradis, *Non-linear matter spectrum for a variable equation of state*, JCAP **1101**, 024 (2011) (9 pages), arXiv:1002.3277 [astro-ph].
- 71) F. Saracco, M. Pietroni, N. Tetradis, V. Pettorino and G. Robbers, *Non-linear matter spectra in coupled quintessence*, Phys. Rev. D **82**, 023528 (2010) (14 pages), arXiv:0911.5396 [astro-ph].
- 70) N. Tetradis, *The temperature and entropy of CFT on time-dependent backgrounds*, JHEP **1003**, 040 (2010) (19 pages), arXiv:0905.2763 [hep-th].
- 69) P. Apostolopoulos, G. Siopsis and N. Tetradis, *Cosmology from an AdS Schwarzschild black hole via holography*, Phys. Rev. Lett. **102**, 151301 (2009) (4 pages), arXiv:0809.3505[hep-ph].
- 68) N. Tetradis, *Effective field theory with a variable ultraviolet cutoff*, J. Math. Phys **50** 013522 (2009), arXiv:0805.1840[hep-th].
- 67) A. Strumia and N. Tetradis, *Anomalous anomalous scaling?*, Phys. Lett. B **668** 312-314 (2008), arXiv:0805.1615[hep-ph].
- 66) N. Brouzakis and N. Tetradis, *Analytical estimate of the effect of spherical inhomogeneities on luminosity distance and redshift*, Phys. Lett. B **665** 344-348 (2008), arXiv:0802.0859[astro-ph].
- 65) G. Isidori, V.S. Rychkov, A. Strumia and N. Tetradis, *Gravitational corrections to standard model vacuum decay*, Phys. Rev. D **77** 025034 (2008) (6 pages), arXiv:0710.5051[hep-th].

- 64) N. Brouzakis, N. Tetradis and C. Wetterich, *Neutrino lumps in quintessence cosmology*, Phys. Lett. B **665** 131-134 (2008), arXiv:0711.2226[astro-ph].
- 63) G. Dvali, H.B. Nielsen and N. Tetradis, *Localization of gauge fields and monopole tunnelling*, Phys. Rev. D **77** 085005 (2008) (11 pages), arXiv:0710.5051[hep-th].
- 62) P. Apostolopoulos, N. Brouzakis, N. Tetradis and E. Tzavara, *Modified brane cosmologies with induced gravity, arbitrary matter content and a Gauss-Bonnet term in the bulk*, Phys. Rev. D **76** 084029 (2007) (11 pages), arXiv:0708.0469[hep-th].
- 61) N. Brouzakis, N. Tetradis and E. Tzavara, *Light propagation and large-scale inhomogeneities*, JCAP **0804**, 008 (2008) (24 pages), astro-ph/0703586.
- 60) N. Brouzakis, N. Tetradis and E. Tzavara, *The effect of large-scale inhomogeneities on the luminosity distance*, JCAP **0702**, 013 (2007) (28 pages), astro-ph/0612179.
- 59) N. Tetradis, J.D. Vergados and A. Faessler, *Direct detection rates of dark matter coupled to dark energy*, Phys. Rev. D **75** 023504 (2007) (11 pages), hep-ph/0609078.
- 58) P. Apostolopoulos and N. Tetradis, *Late acceleration and  $w=-1$  crossing in induced gravity*, Phys. Rev. D **74** 064021 (2006) (8 pages), astro-ph/0604014.
- 57) P. Apostolopoulos, N. Brouzakis, N. Tetradis and E. Tzavara, *Cosmological acceleration and gravitational collapse*, JCAP **0606**, 009 (2006) (21 pages), astro-ph/0603234.
- 56) N. Brouzakis and N. Tetradis, *Static configurations of dark energy and dark matter*, JCAP **0601**, 004 (2006) (20 pages), astro-ph/0509755.

- 55) P. Apostolopoulos and N. Tetradis, *The generalized dark radiation and accelerated expansion in brane cosmology*, Phys. Lett. B **633** 409–414 (2006), hep-th/0509182.
- 54) N. Tetradis, *Dark energy and dark matter in galaxy halos*, Phys. Lett. B **632** 463–466 (2006), hep-ph/0507288.
- 53) P. Apostolopoulos, N. Brouzakis, E. Saridakis and N. Tetradis, *Mirage effects on the brane*, Phys. Rev. D **72** 044013 (2005) (10 pages), hep-th/0502115.
- 52) P. Apostolopoulos and N. Tetradis, *Brane cosmological evolution with a general bulk matter configuration*, Phys. Rev. D **71** 043506 (2005) (6 pages), hep-th/0412246.
- 51) F. Diakonou, E. Saridakis and N. Tetradis *Energy from the bulk through parametric resonance*, Phys. Lett. B **605** 1–8 (2005), hep-th/0409025.
- 50) N. Tetradis, *Brane cosmology with matter in the bulk II*, Class. Quant. Grav. **21** 5221–5232 (2004), hep-th/0406183.
- 49) P. Apostolopoulos and N. Tetradis, *Brane cosmology with matter in the bulk*, Class. Quant. Grav. **21** 4781–4792 (2004), hep-th/0404105.
- 48) N. Brouzakis and N. Tetradis, *The universal equation of state near the critical point of QCD*, Nucl. Phys. A **742** 144–164 (2004), hep-th/0401074.
- 47) N. Tetradis, *The quark-meson model and the phase diagram of two-flavour QCD*, Nucl. Phys. A **726**, 93–119 (2003), hep-th/0303244.
- 46) N. Tetradis, *Cosmological acceleration from energy influx*, Phys. Lett. B **569**, 1–

6 (2003), hep-th/0211200.

45) E. Kiritsis, G. Kofinas, N. Tetradis, T. Tomaras and V. Zarikas, *Cosmological evolution with brane-bulk energy exchange*, JHEP **0302**, 035 (2003) (21 pages), hep-th/0207060.

44) E. Kiritsis, N. Tetradis, T. Tomaras, *Induced gravity on RS branes*, JHEP **0203**, 019 (2002) (18 pages), hep-th/0202037.

43) K.N. Anagnostopoulos, M. Axenides, E. Floratos and N. Tetradis, *Large gauged  $Q$  balls*, Phys. Rev. D **64** 125006 (2001) (7 pages), hep-ph/0109080.

42) E. Kiritsis, N. Tetradis, T. Tomaras, *Induced brane gravity:realizations and limitations* JHEP **0108**, 012 (2001) (20 pages), hep-th/0106050.

41) N. Tetradis, *On brane stabilization and the cosmological constant* Phys. Lett. B **509**, 307–314 (2001), hep-th/0012106.

40) A. Kapoyannis and N. Tetradis, *Quantum-mechanical tunnelling and the renormalization group*, Phys. Lett. A **276**, 225–232 (2000), hep-th/0010180.

39) J. Berges, N. Tetradis and C. Wetterich, *Non-perturbative renormalization flow in quantum field theory and statistical physics*, Phys. Rep. **363**, 223–386 (2002), hep-ph/0005122.

38) G. Münster, A. Strumia and N. Tetradis, *Comparison of two methods for calculating nucleation rates*, Phys. Lett. A **271**, 80–86 (2000), cond-mat/0002278.

37) R. Barbieri, P. Creminelli, A. Strumia and N. Tetradis, *Baryogenesis through lepto-*

*genesis*, Nucl. Phys. B **575**, 61–77 (2000), hep-ph/9911315.

36) N. Tetradis, *The world as a dual Josephson junction*, Phys. Lett. B **479**, 265–272 (2000), hep-ph/9908209.

35) A. Strumia and N. Tetradis, *Bubble-nucleation rates for cosmological phase transitions*, JHEP **9911**, 023 (1999) (16 pages), hep-ph/9904357.

34) A. Strumia and N. Tetradis, *Testing nucleation theory in two dimensions*, Nucl. Phys. B **560**, 482–496 (1999), hep-ph/9904246.

33) A. Strumia and N. Tetradis, *Bubble-nucleation rates for radiatively induced first-order phase transitions*, Nucl. Phys B **554**, 697–718 (1999), hep-ph/9811438.

32) A. Strumia, N. Tetradis and C. Wetterich, *The region of validity of homogeneous nucleation theory*, Phys. Lett. B **467**, 279–288 (1999), hep-ph/9808263.

31) A. Strumia and N. Tetradis, *A consistent calculation of bubble-nucleation rates*, Nucl. Phys. B **542**, 719–741 (1999), hep-ph/9806453.

30) M. Sakellariadou and N. Tetradis, *Spectrum of cosmological perturbations from multiple-stage inflation*, unpublished (25 pages), June 1998, hep-ph/9806461.

29) Z. Berezhiani, D. Comelli and N. Tetradis, *Field evolution leading to hybrid inflation*, Phys. Lett. B **431**, 286–294 (1998), hep-ph/9803498.

28) G. Lazarides and N. Tetradis, *Two-stage inflation in supergravity*, Phys. Rev. D **58**, 123502 (1998) (13 pages), hep-ph/9802242.

- 27) C. Panagiotakopoulos and N. Tetradis, *Two-stage inflation as a solution to the initial-condition problem of hybrid inflation*, Phys. Rev. D **59**, 083502 (1999) (8 pages), hep-ph/9710526.
- 26) N. Tetradis, *Fine tuning of the initial conditions for hybrid inflation*, Phys. Rev. D **57**, 5997–6002 (1997), astro-ph/9707214.
- 25) N. Tetradis, *Renormalization group study of weakly first-order phase transitions*, Phys. Lett. B **431**, 380–386 (1998), hep-th/9706088.
- 24) M. Pietroni, N. Rius and N. Tetradis, *Inverse symmetry breaking and the exact renormalization group*, Phys. Lett. B **397**, 119–125 (1997), hep-ph/9612205.
- 23) N. Tetradis, *Comparison of renormalization group and lattice studies of the electroweak phase transition*, Phys. Lett. B **409**, 355–362 (1997), hep-ph/9611461.
- 22) J. Berges, N. Tetradis and C. Wetterich, *Coarse graining and first-order phase transitions*, Phys. Lett. B **393**, 387–394 (1997), hep-ph/9610354.
- 21) N. Tetradis, *The electroweak phase transition through the renormalization group*, Nucl. Phys. B **488**, 92–140 (1997), hep-ph/9608272.
- 20) S. Bornholdt, P. Büttner, N. Tetradis and C. Wetterich, *Flow of the coarse grained free energy for crossover phenomena*, Int. J. Mod. Phys. A **14**, 899–918 (1999), cond-mat/9603129.
- 19) D. Litim, C. Wetterich and N. Tetradis, *Non-perturbative analysis of the Coleman–*

*Weinberg phase transition*, Mod. Phys. Lett. A **12**, 2287-2308 (1997), hep-ph/9407267.

18) N. Tetradis and D. Litim, *Analytical solutions of exact renormalization group equations*, Nucl. Phys. B **464**, 492–511 (1996), hep-th/9512073.

17) J. Berges, N. Tetradis and C. Wetterich, *Critical equation of state from the average action*, Phys. Rev. Lett. **77**, 873–876 (1996), hep-th/9507159.

16) S. Dimopoulos, G. Giudice and N. Tetradis, *Disoriented and plastic soft terms: A dynamical solution to the problem of supersymmetric flavor violations*, Nucl. Phys B **454**, 59–74 (1995), hep-ph/9504296.

15) J. Adams, J. Berges, S. Bornholdt, F. Freire, N. Tetradis and C. Wetterich, *Solving non-perturbative flow equations*, Mod. Phys. Lett. A **10**, 2367–2380 (1995), hep-th/9507093.

14) S. Bornholdt, N. Tetradis and C. Wetterich, *High temperature phase transitions in two-scalar theories*, Phys. Rev. D **53**, 4552–4569 (1996), hep-ph/9503282.

13) J. Adams and N. Tetradis, *High temperature phase transitions in two-scalar theories with large  $N$  techniques*, Phys. Lett. B **347**, 120–130 (1995), hep-th/9409010.

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- 5) NATO Advanced Research Workshop: Electroweak Physics and the Early Universe, Sintra, March 1994: *High temperature phase transitions with the effective average action*.
- 4) Leipzig Workshop on Quantum Field Theoretical Aspects of High Energy Physics, Kyffhäuser, September 1993: *The effective average action and high temperature phase transitions*.
- 3) 27<sup>th</sup> International Symposium on the Theory of Elementary Particle Physics, Wendisch-Rietz, September 1993: *The high temperature phase transition for the  $\phi^4$  theory*.
- 2) 17<sup>th</sup> Johns Hopkins Workshop on Current Problems in Particle Theory: Particles and the Universe, Budapest, July 1993: *High temperature phase transitions without infrared divergences*.
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