

Vitaly Vanchurin

CONTACT

INFORMATION

University of Minnesota-Duluth
Physics Department
MWAH 378, 1023 University Drive
Duluth, MN 55812

<http://d.umn.edu/cosmology>
Voice: +1(218)726-6777
Fax: +1(218)726-6942
vvanchur@d.umn.edu

EDUCATION

Tufts University, Boston, USA

Ph.D. in Physics, Tufts Institute of Cosmology Aug 2005
Dissertation: Evolution of Cosmic Strings
Advisor: Alexander Vilenkin

M.S. in Physics, Graduate School of Arts and Sciences May 1998

Suffolk University, Boston, USA

B.S in Math & Physics., School of Arts and Sciences May 1996

Moscow State Mathematical School #57, Moscow, Russia

High School Diploma May 1992

MEMBERSHIPS

FQXi, Foundational Questions Institute Sept 2007

GRANTS

Cosmic Logic, Templeton Foundation, \$70,529 July 2013
Hydrodynamics of Cosmic Strings, Grant-In-Aid, \$37,500 May 2013
Cosmology Visitor Program, FQXi mini-grant, \$4,000 May 2014
Fundamental Problems in cosmology, FQXi mini-grant, \$3,450 May 2013
Many Worlds in Cosmology, FQXi mini-grant, \$5,000 May 2009
The Measure Problem, FQXi mini-grant, \$3,000 May 2007

WORK

EXPERIENCE

Assistant Professor, University of Minnesota Duluth, MN, USA (2012-Present)
Research Associate, Stanford University Stanford, CA, USA (2011-2012)
Postdoctoral Researcher, Stanford University Stanford, CA, USA (2009-2011)
Postdoctoral Researcher, University of Munich Munich, Germany (2006-2009)
Research Assistant, Tufts University Medford, MA, USA (2002-2006)

REFERENCES

Alan Guth, MIT 77 Mass. Ave., 6-322, Cambridge, MA 02139, USA
E-mail: guth@ctp.mit.edu *Voice:* +1(617)253-6265
Andrei Linde, Stanford Varian Bldg. 316, Stanford, CA 94305, USA
E-mail: alinde@stanford.edu *Voice:* +1(650)723-2687
Viatcheslav Mukhanov, Munich Theresienstr. 37, Munich, 80333, Germany
E-mail: mukhanov@theorie.physik.uni-muenchen.de *Voice:* +49(89)2180-4543
Leonard Susskind, Stanford Varian Bldg. 324, Stanford, CA 94305, USA
E-mail: susskind@stanford.edu *Voice:* +1(650)723-2686
Alexander Vilenkin, Tufts 212 College Avenue, Medford, MA 02155, USA
E-mail: vilenkin@cosmos.phy.tufts.edu *Voice:* +1(617)627-3147

RECENT
PUBLICATIONS

- Field Theory for Perfect String Fluids
with Daniel Schubring arXiv:1410.5843
- The Continuum of Discrete Trajectories in Eternal Inflation arXiv:1408.4854
- String Fluid in Local Equilibrium
with Daniel Schubring Phys. Rev. D 90 (2014) 083516
- Transport Equation for Nambu-Goto
with Daniel Schubring PRD 89 (2014) 083530
- Fluid mechanics of strings
with Daniel Schubring PRD 88 (2013) 083531
- Kinetic theory and hydrodynamics of cosmic strings PRD 87 (2013) 063508
- Eternal inflation, global time cutoff measures, and a probability paradox
with Alan Guth arXiv:1108.0665
- Dynamical systems of eternal inflation ... PRD 86 (2012) 043502
- Towards a kinetic theory of strings PRD 83 (2011) 103525
- Semi-scaling cosmic strings JCAP (2010) 1011:013
- Non-linear dynamics of cosmic strings ... PRD 82 (2010) 063503
- How many universes are in the multiverse?
with Andrei Linde PRD 81 (2010) 083525

RECENT
PRESENTATIONS

- Hydrodynamics of Strings
High Energy Theory Seminar, University of Minnesota, USA April 2014
- Kinetic Theory of Strings
Cosmic Strings 2014, Arizona State U., USA February 2014
Winter School, University of Minnesota, USA January 2014
- The Universe before and after the Big Bang
Physics Seminar, University of Minnesota, USA September 2013
- Paradoxes in physics
Physics Seminar, University of Minnesota, USA December 2012
- Dynamical systems of eternal inflation
Joint Tufts/Harvard/MIT Seminar, Tufts University, USA February 2012
- Thermodynamics of eternal inflation
SITP Seminar, Stanford University, USA January 2012
- Kinetic theory of strings
Joint Tufts/Harvard/MIT Seminar, Tufts University, USA November 2011
High Energy Theory Seminar, University of Minnesota, USA November 2011
Cosmology Seminar, Arizona State University, USA October 2011
- Physics Beyond the Standard Theory of Inflation and Dark Energy
Fundamental Issues in Cosmology, Perimeter Institute, Canada July 2011