

Jan Fiala

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- Education** University of Maine, Orono, Ph.D., Physics, December 2004.
Czech Technical University, Prague, M.Sc., Mathematical Physics, June 1997.
- Positions, Schools** Czech Technical University, Prague, Czech Republic - graduate school (1992-1997)
Charles University in Prague, Czech Republic - advanced courses in theoretical physics (1996-1997)
Academy of Sciences of the Czech Republic - research (1996-1997)
Third Faculty of Medicine, Charles University - special courses for scientists (1996)
University of Maine, Department of Mathematics & Statistics, Orono, ME - teaching assistant (1998)
Gymnázium J. Heyrovského, Prague, Czech Republic - teacher (1998-1999)
University of Maine, Department of Physics, Orono, ME - teaching assistant, Ph.D. student (1999-2004)
Clark University, Worcester, MA - postdoctoral position (2005-2007)
Worcester Polytechnic Institute, MA - lecturer (graduate level) (2005-2007)
Central Michigan University, Mt. Pleasant, MI - Temporary Assistant Professor (2007-)
- Research interests** Theoretical studies and computer simulations in Statistical Physics. In particular, I am interested in the dynamics of first-order transitions including nucleation, the phase transition of statistical models defined on Farey fractions, and transfer operators.
- Teaching experience** **Graduate**, Classical Dynamics, Computational Physics
Undergraduate, Electricity and Magnetism, Quantum Mechanics, Algebra based Physics, Calculus based Physics, Conceptual Physics, University Physics Laboratory
- Other experience**
- Laboratory and workshop in introductory physics, University of Maine, Orono.
 - Help sessions and grading, Department of Mathematics, University of Maine, Orono.
 - Teaching assistant for thermodynamics & statistical physics, theoretical physics, and many body theory (graduate), Czech Technical University, Prague.

Jan Fiala

- Taught one year of physics (including mechanics, thermodynamics, electrodynamics and special relativity), prepared students for the Czech Physics Olympiad and graded Olympiad questions, Gymnázium J. Heyrovského, Prague.

Publications J. Fiala, K. Barros, H. Gould, and W. Klein, “Early stages of continuous ordering and spinodal decomposition,” in preparation.

T. Prellberg, P. Kleban, and J. Fiala, “The Farey fraction spin chain: Effects of an external field,” in preparation.

J. Fiala, and P. Kleban, “Intervals between Farey fractions in the limit of infinite level,” math-ph/0505053, submitted to Acta Arithmetica.

T. Prellberg, J. Fiala, and P. Kleban, “Cluster approximation for the Farey fraction spin chain,” J. Stat. Phys. **123**, 455–471 (2006).

J. Fiala and P. Kleban, “Generalized number theoretic spin chain-connections to dynamical systems and expectation values,” J. Stat. Phys. **121**, 553–577 (2005).

J. Fiala and P. Kleban, “Thermodynamics of the Farey fraction spin chain,” J. Stat. Phys. **116**, 1471–1490 (2004).

J. Fiala, P. Kleban, and A. Özlük, “The phase transition in statistical models defined on Farey fractions,” J. Stat. Phys. **110**, 73–86 (2003).

**Meetings,
presenta-
tions**

Student Winter, School on Mathematical Physics, Horní Polubný, Czech Republic, 1996; contributed talk: “Pontrjagin’s principle of maxima.”

Student Winter School on Mathematical Physics, Horní Polubný, 1997; contributed talk: “Mathematical and experimental study of pulsatile flow in elastic tubes.”

Workshop on Biomechanical Modeling and Numerical Simulation, Institute of Thermomechanics, Academy of Science, Prague, 1997; invited talk: “Mathematical and experimental study of pulsatile flow in elastic tubes.”

Workshop on Maass Wave Forms, Selberg Zeta Function, and Spin Chains, Bonn, Germany, 2002; invited talk: “The phase transition in statistical models defined on Farey fractions.”

Statistical Mechanics Conference, Rutgers University, 2003; contributed talk: “RG results for the Farey fraction spin chain.”

Annual Greater Boston Area Statistical Mechanics Meeting, Brandeis University; contributed talks: “Thermodynamics of the Farey spin chain,” (2003), “Comments on the correlation length of the Farey fraction spin chain,” (2004), “Early stages of continuous ordering and spinodal decomposition,” (2005).

Colloquium at Institute of Experimental and Applied Physics, Prague, Czech Republic: “The morphology of early time continuous ordering and spinodal decomposition,” (2006).

Conference on Teaching, Learning & Civic Engagement, CMU, Mount Pleasant, 2008.

Intermediate course in Mathematica, Rocky Mountains, Colorado, 2008.

Languages English, Czech, Russian, and German.