

Nadir Bayramov

CONTACT INFORMATION

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EDUCATION AND POSTGRADUATE EDUCATION

- PhD student at **RICAM**, Linz, Austria
autumn 2012 – autumn 2015 (thesis defended in February, 2018)
 - Thesis Topic: *Stable discretization and robust multilevel methods for convection-diffusion problems*
- Master Studies in Applied Mathematics and Computer Science, 2005–2010
MSc (Specialist) Degree, **Moscow State University**
The Faculty of Computational Mathematics and Cybernetics
Department of Systems Analysis
graduated in June 2010
 - Thesis Topic: *Control problems for hyperbolic systems with two-dimensional spatial variable*

RESEARCH INTERESTS

- Theoretical analysis and analytical/numerical solution of PDEs
- Preconditioners and iterative solvers for linear/nonlinear systems of algebraic equations resulting from PDE discretization
- Optimization and optimal control theory and applications

PROFESSIONAL EXPERIENCE

Solar and Stellar Interiors Group, Max Planck Institute For Solar System Research

PostDoc Researcher

since February 2019

System Analysis, Prognosis and Control group at Fraunhofer ITWM

Research Fellow

October 2015 – March 2016

Group of Computational Methods for PDEs at RICAM, Linz

Participation in FWF-Project 22989

”Subspace correction methods for indefinite problems”

Research Scientist

December 2011 – August 2014

NANO-D research group at INRIA Grenoble - Rhone-Alpes

Research internship

July 2009 – September 2009

PUBLICATIONS

V. Ulyanov, V. Ushakov, N. Bayramov, T. Nagapetyan. Mathematical statistics problems with solutions. *Tutorial, Moscow State University, Moscow*, 2008 (in Russian)

N. Bayramov, T. Nagapetyan, R. Pinnau. Fast optimal control of asymmetric flow field flow fractionation processes, *Proceedings of SIAM Conference on Control and Its Applications, San Diego, California* (2013), pp. 207–213.

N.R. Bayramov, J.K. Kraus. On the stable solution of transient convection-diffusion equations. *Journal of Computational and Applied Mathematics*, 280 (2015), pp. 275–293.

N.R. Bayramov, J.K. Kraus. Multigrid methods for convection-diffusion problems discretized by a monotone scheme. *Comput. Methods Appl. Mech. Engrg.* 317 (2017), pp. 723–745.

N.R. Bayramov. Numerical solution of forward problem for displacement vectors in frequency domain for a solar model with small background flows. (under preparation) (2020)