



Dr. Agnes RADL

Lecturer at University of Greifswald, Greifswald, Germany

agnes.radl@uni-greifswald.de

Educational Curriculum	<p>2003 diploma in mathematics, University of Tübingen, Germany</p> <p>2006 PhD in mathematics, University of Tübingen, Germany</p> <p>2015 habilitation in mathematics, University of Leipzig, Germany</p>
Professional Experience	<p>2006 to 2007 postdoctoral fellow at University of Tübingen, Germany</p> <p>2007 lecturer at University of Siegen, Germany</p> <p>2007 to 2008 postdoctoral fellow at University of Otago, New Zealand</p> <p>2008 postdoctoral fellow at University of Tübingen, Germany</p> <p>2008 visiting professor at Karl-Franzens-Universität Graz, Austria</p> <p>2009 to 2011 research scientist at Max Planck Institute of Biological Cybernetics, Tübingen, Germany</p> <p>2010 to 2011 lecturer at Karlsruhe Institute of Technology, Germany</p> <p>2011 to 2013 postdoctoral fellow at University of Bern, Switzerland</p> <p>2013 to 2017 postdoctoral fellow at University of Leipzig, Germany</p> <p>since 2017 lecturer at University of Greifswald, Germany</p>
Current research interest	<ul style="list-style-type: none"> - numerical range of operators - operator semigroups and their applications - evolution problems in networks
Research methods	<ul style="list-style-type: none"> - operator theory, functional analysis
Publications	<p>B. Dorn, M. Kramar Fijavž, R. Nagel, and A. Radl, <i>The semigroup approach to transport processes in networks</i>, Physica D: Nonlinear Phenomena 239 (2010), 64–73.</p> <p>A. Radl, <i>Transport processes in networks with scattering ramification nodes</i>, J. Appl. Funct. Anal. 3 (2008), 461–483.</p> <p>A. Radl, <i>Semigroups applied to transport and queueing processes</i>, PhD thesis, Eberhard Karls Universität Tübingen (2006).</p>

Transport processes in networks with scattering ramification nodes

Abstract of the talk: In this talk I will present a transport problem in a network which is modelled by a directed weighted graph. We assume that particles can move along the edges with different velocities. In the vertices the particles are scattered, i.e., they change their velocity. Then they are distributed among the outgoing edges according to the weights of the edges. Our main interest is in the time asymptotic behaviour of the system. To this end we formulate the problem as an abstract Cauchy problem and then apply semigroup methods.