

**Application for Admission to the Doctoral School “Dissipation and Dispersion
in Nonlinear Partial Differential Equations” and Application to the Special
Research Program “Taming Complexity in Partial Differential Systems”**

Please fill out and send to manuela.khaladj@tuwien.ac.at

Biographical Information

Last Name: _____ First Name: _____

Date of Birth (Day-Month-Year): _____ City, State of Birth: _____

Citizenship: _____ Marital Status: Married Single Gender: Female Male

Permanent Address: _____

_____ Country: _____

E-mail: _____

Academic Information:

Indicate the highest level of education you have earned: Bachelor Master Ph.D.

Master Degree or Equivalent in Progress Complete

Name of Degree: _____

College / University Name: _____

City / Country: _____

Starting Date (Month-Year): _____ Completion Date (Month-Year): _____

Years Attended: _____ Grade: _____

Additional Education in Progress Complete

Name of Degree: _____

College / University Name: _____

Address: _____

Starting Date (Month-Year): _____ Completion Date (Month-Year): _____

Years Attended: _____ Grade: _____

Additional Education in Progress Complete

Name of Degree: _____

College / University Name: _____

Address: _____

Starting Date (Month-Year): _____ Completion Date (Month-Year): _____

Years Attended: _____ Grade: _____

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Academic Honors and Awards:

Native and Foreign Language Information:

Please indicate your native language: _____

High = Fluency, accuracy, range of an educated native user of the language

Moderate = Able to read non-technical materials and technical writing in one's field and carry on an exchange of ideas

Low = Able to read simple propose with difficulty, follow simple conversation, but not as a means of exchanging ideas.

Language 1:

Speaking Ability	Reading Ability	Writing Ability
<input type="checkbox"/> High	<input type="checkbox"/> High	<input type="checkbox"/> High
<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate
<input type="checkbox"/> Low	<input type="checkbox"/> Low	<input type="checkbox"/> Low

Language 2:

Speaking Ability	Reading Ability	Writing Ability
<input type="checkbox"/> High	<input type="checkbox"/> High	<input type="checkbox"/> High
<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate
<input type="checkbox"/> Low	<input type="checkbox"/> Low	<input type="checkbox"/> Low

Language 3:

Speaking Ability	Reading Ability	Writing Ability
<input type="checkbox"/> High	<input type="checkbox"/> High	<input type="checkbox"/> High
<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate
<input type="checkbox"/> Low	<input type="checkbox"/> Low	<input type="checkbox"/> Low

Other Languages: _____

Title of Master Thesis
You may attach a resume with more details if needed.

Most important publications or original work (if applicable)
You may attach a resume with more details if needed.

1. _____
2. _____

Relevant work experience (if applicable)
You may attach a resume with more details.

1. **Employer:** _____ **Start Date:** _____
Position: _____ **End Date:** _____
2. **Employer:** _____ **Start Date:** _____
Position: _____ **End Date:** _____

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Research Interests

Indicate your preferences for the research projects of the doctoral program*.

- Degenerate Fokker-Planck equations and reversed logarithmic Sobolev inequalities (Arnold, DK)
- Model-risk in finance - a transport viewpoint (Beiglböck, DK)
- Macroscopic models for spintronics (Jüngel, DK)
- Geometry of generalized transport metrics (Maas, DK)
- Nonlinear Schrödinger equations (Mauser, DK)
- Numerical methods for wave equations (Melenk, DK)
- Model order reduction for frequency response problems (Perugia, DK)
- Effective numerical methods for time-dependent micro-magnetics (Praetorius, DK)
- Hypocoercivity and chemical reactions in kinetic transport (Schmeiser, DK)
- Pressure robust discretization methods for Navier-Stokes equations (Schöberl, DK)
- Elliptic regularization of nonlinear evolution equations (Stefanelli, DK)
- ~~Long-time asymptotics for integrable wave equations (Teschl, DK)~~
- Large-time behavior of continuous dissipative systems (Arnold, SFB)
- Large-time behavior of discrete dissipative systems (Jüngel, SFB)
- Structure preserving variational discretisation via optimal transport (Maas, SFB)
- PDE models for transportation networks (Markowich, SFB)
- ~~Time dependent (magnetic) Schrödinger equations (Mauser, SFB)~~
- High order numerical methods for nonlocal operators (Melenk, SFB)
- Problem adapted discretisations of wave equations (Perugia, SFB)
- ~~Coupling in computational micromagnetics (Praetorius, SFB)~~
- Large time and macroscopic asymptotics in kinetic transport (Schmeiser, SFB)
- Automated discretization in multiphysics (Schöberl, SFB)
- ~~Multiphysics effects in solids (Stefanelli, SFB)~~

Preferences & Additional Information

I certify that the information provided on this application is, to the best of my knowledge, complete and accurate.

* DK = Doctoral School, SFB = Special Research Program