



WESTFÄLISCHE  
WILHELMS-UNIVERSITÄT  
MÜNSTER

# Modern Many-Core Systems and their Programming



living.knowledge  
WWU Münster

**Prof.Dr. Sergei Gorlatch**  
**University of Münster, Germany**

# University and Research Group

- One of the largest universities in Germany (>40.000 students)
- Research group on *Parallel and Distributed Systems (PVS)* conducts (inter)nationally networked R & D in **modern and emerging IT-topics:**
  - Algorithms & software for many-core systems incl. GPU
  - High-level programming models
  - Distributed systems
  - Grid and Cloud computing
  - Internet-based applications
- The PVS group comprises 4 - 7 members of staff





# Research Projects of the Group

- (Inter)national projects of the group:
  - EU-project *edutain@grid*
  - EU-Networks of Excellence *S-Cube* and *CoreGRID* (service-oriented & Grid computing)
  - German *SFB 652 MoBil* (high-performance medical imaging)
  - EU-project OFERTIE (QoS management in OpenFlow networks)
  - EU “Marie Curie Actions” MONICA (Mobile Cloud Computing)



# Teaching modern IT-topics

- **Our main teaching principles:**

- Involve students into running R & D projects
- Develop planning, design and coding skills requested by industry
- Offer ambitious projects on novel, emerging topics
- Organize team work and management similar to a software company
- Assign roles & responsibilities according to knowledge & experience
- Provide continuous advice, support and control on a daily basis
- Encourage search for new ideas and solutions
- Monitor individual efforts and success stories
- Require intermediate and a final presentations and deliverables
- Strive for a continuation (paper, thesis, etc.)

**=> team-oriented projects (“Projektseminar”) for BSc and MSc**

# Overview of PVS Lecture Courses

