



2015 plenary meeting DFG Priority Programme 1713

“Strong coupling of thermo-chemical and thermo-mechanical states in applied materials”

Program Schedule

Ruhr-University Bochum, Germany

04th + 05th November 2015

Beckmanns Hof, Room Shanghai
Universitätsstraße 150, 44801 Bochum

Organized by

ICAMS, Ruhr-University Bochum, Germany



“Strong coupling of thermo-chemical and thermo-mechanical states in applied materials”

2015 plenary meeting DFG Priority Programme 1713

04th + 05th November 2015

Ruhr University Bochum

Beckmanns Hof, Room Shanghai

Wednesday 04th November

| | |
|---------------|--------------------------------|
| 14:00 – 14:30 | Introduction Steinbach/Grenzer |
| 14:30 – 16:00 | Project presentations M1 + M2 |
| 16:00 – 16:30 | Break |
| 16:30 – 18:00 | Project presentations M3 + M4 |
| 19:00 | Dinner |

Thursday 05th November

| | |
|---------------|--|
| 09:00 – 11:15 | Project presentations P1 + P3 |
| 11:15 – 11:45 | Break |
| 11:45 – 13:00 | Projectgroups |
| 13:00 – 14:00 | Break |
| 14:00 – 15:30 | Discussion of common activities / Benchmarks |
| End | |



Participating projects DFG Priority Programme 1713

| No. | Investigator | Topic |
|-----|---|--|
| M1 | Reza Darvishi Kamachali, Bochum Birgit Skrotzki, Berlin | Evolution of strengthening phases under in-service stresses and temperatures: phase-field and experimental study |
| M2 | Sergiy Divinski, Münster Tilmann Hickel, Düsseldorf | Mechano-chemical coupling during precipitate formation in Al-based alloys |
| M3 | Dirk Helm, Freiburg Dierk Raabe, Düsseldorf | Thermo-chemo-mechanical coupling during thermomechanical processing of microalloyed steels (TCMPrecipSteel) |
| M4 | Martin Hunkel, Bremen Ulrich Prahl, Aachen Robert Spatschek, Düsseldorf | Modeling bainitic transformations during press hardening (PressBain) |
| P1 | Joachim Bluhm, Essen Jörg Schröder, Essen | Modeling of Ionic Electroactive Polymers - Consistent Formulation of the thermoelectro-chemo-mechanical coupling effects and Finite-Element Discretization |
| P2 | Günther Eggeler, Bochum Holger Steeb, Bochum Fathollah Varnik, Bochum | On the effect of thermo-mechanical and chemo-mechanical coupling on the structural and functional properties of shape memory polymers (SMPs) |
| P3 | Marina Grenzer, Dresden Markus Kästner, Dresden | Modeling of strongly coupled magnetomechanical behavior in magneto-sensitive elastomers |