

## Interdisciplinary Workshop on Recent Progress in Set-oriented Numerics and Networks Research

Sun	Mon	Tue	Wed	Thu	Fri
Theme: Transfer Operators	Theme: Networks	Theme: Networks and short talks	Theme: Discretization of transfer operators	Theme: New directions	Theme: New directions
<p>1. Theoretical Background, Metastability, Hitting times and committors</p> <p>2. Projected transfer operators</p>	<p>1. Introduction</p> <p>2. PCCA+ and TPT</p> <p>3. Modules in undirected networks</p> <p>4. Modules in directed networks I+II</p>	<p>1. Non-reversible Markov chains</p> <p>Explain to everyone in 10 minutes: What you are doing and why?</p> <p>Short talks by all participants</p>	<p>1. Introduction</p> <p>2. Full partition and core set MSMs</p> <p>3. Meshless Discretization</p> <p>Explain to everyone in 10 minutes: What you are doing and why?</p> <p>Short talks by all participants</p>	<p>1. Set-oriented Numerics for deterministic dynamical systems</p> <p>2. Sparse Approximation</p> <p>3. Sparse Optimization</p> <p>Short talks by all participants</p>	<p>1. Optimal control of MD</p> <p>2. Nonequilibrium</p> <p>3. Final discussion</p>

Each full talk (mostly 45 min) and short talk (max 10 min) including discussion

# Interdisciplinary Workshop on Recent Progress in Set-oriented Numerics and Networks Research

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
<p><b>Theme: Transfer Operators</b></p> <p>1. Theoretical Background: Transfer operators, metastability, hitting times, and committors (Ch. Schütte, 90)</p> <p>BREAK</p> <p>2. Projected transfer operators and generators (Ch. Schütte / A. Nielsen, 60)</p>	<p><b>Theme: Networks / Discrete Markov Processes</b></p> <p>1. Introduction (T. Conrad, 30)</p> <p>2. PCCA+ and TPT (A. Nielsen, 30)</p> <p>3. Modules in undirected networks (N. Conrad-Djurdjevac, 30)</p> <p>BREAK</p> <p>4. Modules in directed networks: Hitting time approach (M. Sarich, 30)</p> <p>5. Modules in directed networks: Cycle graph approach (N. C-D, R. Banisch, 30)</p>	<p><b>Theme: Networks / Discrete Markov Processes</b></p> <p>1. Non-reversible Markov chains (M. Weber, 30)</p> <p>BREAK</p> <p>2. Contributed talks (all participants, 60)</p> <p>BREAK</p> <p>3. Contributed talks (all participants, 60)</p>	<p><b>Theme: Discretization of Transfer Operators</b></p> <p>1. Introduction (Ch. Schütte, 30)</p> <p>2. Markov State Models: Core set approach and full partitions (M. Sarich, 60)</p> <p>BREAK</p> <p>3. Meshless discretization (M. Weber, 45)</p> <p>BREAK</p> <p>4. Contributed talks (all participants, 30)</p>	<p><b>Theme: New directions</b></p> <p>1. Set-oriented numerics for deterministic dynamical systems (Ch. Schütte, 45)</p> <p>2. Sparse discretization (M. Sarich, 45)</p> <p>BREAK</p> <p>3. Sparse optimization (T. Conrad, 45)</p> <p>4. Contributed talks (all participants, 30)</p>	<p><b>Theme: New directions</b></p> <p>1. Optimal control of MD (R. Banisch, 60)</p> <p>BREAK</p> <p>2. Non-equilibrium (H. Wang, 30)</p> <p>BREAK</p> <p>3. Final discussion</p>