Franco-German Summer School on Inverse Problems and Imaging

University of Bremen

September 18–22, 2017

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<th>Monday</th>
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<td>9:00-10:30</td>
<td>G. Bal Hybrid Inv. Problems</td>
<td>G. Bal Hybrid Inv. Problems</td>
<td>Talk Session 3</td>
<td>A. Chambolle Algorithms for Imaging</td>
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<td>10:30-11:00</td>
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<td>11:00-12:30</td>
<td>S. Arridge Hybrid Inv. Problems</td>
<td>Talk Session 1</td>
<td>Talk Session 4</td>
<td>D. Lorenz Sparsity Regularization</td>
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<td>12:30-14:00</td>
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<td>14:00-15:30</td>
<td>G. Bal Hybrid Inv. Problems</td>
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<td>A. Chambolle Algorithms for Imaging</td>
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<td>15:30-16:00</td>
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<td>16:00-17:30</td>
<td>S. Arridge Hybrid Inv. Problems</td>
<td>Talk Session 2</td>
<td>City Tour</td>
<td>D. Lorenz Sparsity Regularization</td>
<td>D. Lorenz Sparsity Regularization</td>
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<td>18:00-19:00</td>
<td>C. de Mol Public Lecture</td>
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(See the next page for more detailed information)
• **Registration:** Monday, 08:15-08:50 in front of MZH 1470.

• The location of the lectures and talks is MZH 1470, the coffee breaks will be held in MZH 1460.

• The public lecture on Monday begins at 18:00 (sharp).
  
  **Location:** Haus der Wissenschaft, Sandstraße 4/5, 28195 Bremen, Olbers-Saal, 1. OG (first floor).
  **Title:** Angels and Demons of Mathematical Imaging
  **Speaker:** Prof. Christine De Mol, European Center for Advanced Research in Economics and Statistics, Université libre de Bruxelles, Belgium

• The venue for the conference dinner on Tuesday is the "Kaffeemühle Bremen" (http://www.muehle-bremen.de/). You can get there with the tram 6, 4, or 8 till station "Herdentor". Please remember that you will have to pay for your drinks.

• The city tour begins at 16:00 on Wednesday, we will meet in front of "Die Glocke" (visible from the tram station "Domsheide", use tram 2, 4, 6 or 8)

• Contents of the talk sessions:

  **Talk Session 1 (Tue 11:00 — 12:30)**

  11:00  *Olivier Herscovici-Schiller*
  Inverse problems as tools for imaging exoplanets

  11:30  *Di He*
  Joint Reconstruction of XCT/DOT with Structural Similarity and the Preparation of Optical Phantom

  12:00 *Kostiantyn Maksymenko*
  Sparsity regularization in M/EEG inverse problem

  **Talk Session 2 (Tue 16:00 — 17:00)**

  16:00  *Marc Bakry*
  Measuring the size distribution of nano-particles in dense media with SAXS

  16:30  *Adar Kahana*
  Convective wave equation and time reversal process for source refocusing

  **Talk Session 3 (Wed 9:00 — 10:30)**

  9:00  *Changyou Li*
  Levenberg-Marquardt iteration for Acousto-Electric Tomography based on complete electrical model

  9:30  *Symeon Papadimitropoulos*
  Imaging extended reflectors in a terminating waveguide

  10:00  *Léo Lebrat*
  Variational approaches for stippling

  **Talk Session 4 (Wed 11:00 — 12:00)**

  11:00  *Xiaoli Liu*
  A direct imaging method for inverse scattering by an unbounded rough surface