Inverse Scattering Theory and Transmission Eigenvalues

prof. David Colton

University of Delaware
Department of Mathematical Sciences
Newark, DE 19716, USA
colton at math.udel.edu
http://www.math.udel.edu/∼colton/

Outline

1. scattering by an inhomogeneous medium
2. far field patterns and inverse scattering
3. ill-posed problems
4. the factorization and linear sampling methods
5. the transmission eigenvalue problem
6. inverse spectral problems

Timetable

The lectures take place in room M101 at the Department of Mathematical Sciences, University of Oulu. The detailed timetable is as follows:

<table>
<thead>
<tr>
<th>Time</th>
<th>Tuesday, Jun 9</th>
<th>Wednesday, Jun 10</th>
<th>Thursday, Jun 11</th>
<th>Friday, Jun 12</th>
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</thead>
<tbody>
<tr>
<td>11.00–12.00</td>
<td>Lecture</td>
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<td>12.00–14.00</td>
<td>Lunch</td>
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<td>14.00–15.00</td>
<td>Lecture</td>
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<td>15.00–</td>
<td>Discussion</td>
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Student Credits

Both undergraduate and postgraduate students are welcome to attend lectures. Students can earn 2 ECTS credits if they attend all lectures and complete a few assignments and/or exercises.

Material will be available at http://www.oulu.fi/inverse/seminar

References
