



Centre of Excellence of Inverse Modelling and Imaging
Invited Lectures, November 6–9, 2018, Oulu, Finland

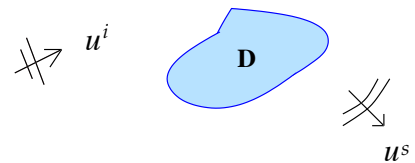
Topics in Inverse Scattering Theory

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Outline

1. An Introduction to Scattering Theory
2. Inverse Scattering Theory and Transmission Eigenvalues
3. Spectral Theory for the Transmission Eigenvalue Problem
4. Eigenvalue Problems in Inverse Scattering Theory



Timetable

The lectures take place in various rooms at University of Oulu main campus. The detailed timetable is as follows:

Room	Tuesday, Nov 6	Wednesday, Nov 7	Thursday, Nov 8	Friday, Nov 9
11.00–12.00	TM113 Lecture	MA337 Lecture	MA342 Lecture	MA342 Lecture
12.00–14.00	<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>
14.00–15.00	Lecture	Lecture	Lecture	Lecture
15.00–	Discussion	Discussion	Discussion	Discussion

Registration and 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. Please register to the course in WebOodi:

802628S Advanced studies special course: Topics in Inverse Scattering Theory

Acknowledgement

The course is sponsored by Technology and Natural Sciences Doctoral Programme (TNS-DP).

References

- [1] D. Colton and R. Kress. *Inverse Acoustic and Electromagnetic Scattering Theory*, third edition, Springer-Verlag, 2013.
- [2] F. Cakoni and D. Colton. *A Qualitative Approach to Inverse Scattering Theory*, Springer, 2014.

<http://www.oulu.fi/inverse>

Further info: V. Serov, T. Tyni (Inverse Problems Research Group Oulu)