Inverse Problems Network Meeting 4

Thursday, 17th January 2019 - Friday, 18th January 2019

Mall Room, Level 8 of the School of Mathematics, University of Leeds

Abstract of Talk

THE ALTERNATING METHOD FOR CAUCHY PROBLEMS

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The alternating method for solving elliptic problems with Cauchy data given on a part of the boundary consists of iterative solutions of Dirichlet - Neumann mixed boundary value problems for the same elliptic equation. Its convergence was proved in 1990 by V. Maz'ya and the author. I will talk about further development of this method and its applications. In particular about its modification (Dirichlet - Robin iterations) for solving the Helmholtz equation, its connection with the Landweber iterations, various accelerations and other extensions.