Analysis Seminar

ON SOME INVERSE SOURCE PROBLEMS FOR MULTIDIMENSIONAL PARABOLIC EQUATIONS

By

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Abstract: In this talk, two inverse source problems for multidimensional parabolic equations backward in time will be considered. While one of the problems is governed by a linear parabolic equation, the other problem is governed by a semilinear one. In each of these problems we will recover a space-dependent source term from overdetermination. For the numerical solutions of the problems some finite difference schemes will be proposed. In the theoretical framework of the study, some stability estimates and existence and uniqueness results for the analytical and/or numerical solutions of the problems will be presented.
Furthermore, to show the efficiency of the proposed methods a numerical analysis will be given.

Date: October 22, Tuesday
Time: 14:00-15:00
Place: SA141 - Mathematics Seminar Room