# ICM 1998, Berlin, Aug. 18–27

## Abstracts of Short Communications and Posters

### Section:

## 10. Partial Differential Equations

1991 MS Classification: 35
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**Initial boundary–value problems for the Korteweg – de Vries equation**
The Korteweg – de Vries (KdV) equation $u_t+u_{xxx}+au_x+uu_x=0$ describes a propagation of nonlinear one–dimensional waves in dispersive media. One can pose initial boundary–value problems for this equation in three different domains: right and left half–strips and a bounded rectangle. Results on nonlocal resolvability and well–posedness of these problems in various functional spaces will be presented. The main attention will be attracted to the genegalized solutions under irregular boundary data. The essential item of the investigation is the study of properties of special solutions of the linearized KdV equation of the boundary potential type.