THE 5TH SYMPOSIUM ON ANALYSIS & PDES

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The two-phase thin obstacle problem
Abstract. The thin obstacle problem can be reformulated in terms of minimizing a new functional. A two-phase problem then naturally arises which has applications in heat control at the boundary of a domain. This is analogous to the two phase classical obstacle problem which has applications in heat control through the interior of a domain. We study both the regularity of the solutions and the free boundaries.