The Stefan Problem

ontheonedimensional stefanproblem - diva portal *- 1 introduction a stefan problem is a specific type of boundary value problem for a partial differentialequationconcerningheatdistributioninaphasechangingmedium.* ***lecture notes on the stefan problem - sapienza*** *- a fixed point of this transform corresponds to a solution of the complete problem. remark 1.3. the meaning of conditions (1.1) and (1.5) in the context of two phases problems is probably better understood in terms of the weak formulation of the stefan problem, which is discussed below in chapter 2. we remark here* ***modeling ice dynamics as a thin-film stefan problem*** *- kim, adalsteinsson and lin / modeling ice dynamics as a thin-film stefan problem we present a 'thin-film' version of the stefan problem and design a novel method for solving this problem efficiently. features on the ice surface frequently merge, so we have elected to use level set methods for the overall simula-tion [of03,set99].* ***some historical notes on the stefan problem.*** *- for a more general problem, such that f(t) is not constant, stefan gives some further ideas to obtain the solution, and calculates some approximations [stefan, 1891; p. 283-286]. however, for this problem he was not able to give an explicit solution. 3 the origin of the measurements.* ***a simple level set method for solving stefan problems*** *- a simple level set method for solving stefan problems is pre- studied problem of dendritic crystal growth. sented. this method can be applied to problems involving dendritic the process of crystal growth begins when one places a solidification. our method consists of an implicit finite difference small seed of solid material into a ...* ***one-phase stefan problems - tu/e*** *- the stefan problem 2 strategies for solving mbp tentative list of methods self-similar solutions 3 global heat balance dirichlet problem neumann problem 4 classical solution maximum principle existence theorem* ***the two-phase stefan problem for the heat equation*** *- abstract—this paper is devoted to the two-phase stefan problem with the irregular diving boundary of the region. we consider a two-dimensional heat equation with two known boundary conditions in one at the left-hand-side and the other* ***the stefan problem in several space variables*** *- solutions of the stefan problem, in several space variables, were obtained by a different method in [2]. in the definition of a weak solution enters a function a(u) defined by a(u) = «i« if m > 0, = a2u—a if u ^ 0, where au*