1003-05-1365 **Stephen G. Hartke*** (`hartke@math.uiuc.edu`), Department of Mathematics, University of Illinois at Urbana-Champaign, 273 Altgeld Hall, MC-382, Urbana, IL 61801, and **Mike Develin**.
Fire containment in grids of dimension three and higher. Preliminary report.

We consider a deterministic discrete-time model of fire spread introduced by Hartnell [1995] and the problem of minimizing the number of burnt vertices when deploying a limited number of firefighters per timestep. We consider the process occurring on the d-dimensional square lattice for d>=3, and we prove several results, including two conjectures of Wang and Moeller [2002]. (Received October 05, 2004)