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Eliana Maria Duarte Gelvez* (emduart2@illinois.edu), Department of Mathematics, 1409
W. Green Street, Urbana, IL 61801. *Implicitization of tensor product surfaces.*

A tensor product surface is the image of a rational map $\mathbb{P}^1 \times \mathbb{P}^1 \dashrightarrow \mathbb{P}^3$. Such surfaces arise in geometric modeling and in this context it is useful to know the implicit equation of the closure of the image. In this talk I will present recent progress on improving syzygy based algorithms to determine the implicit equation of the surface. (Received August 10, 2015)