1051-14-81   **J. Maurice Rojas*** (`rojas@math.tamu.edu`), TAMU 3368, Math Department, Texas A&M University, College Station, TX 77843-3368. *Chamber Cones and Faster Real Solution Counting.*

The Chamber Cone method is a powerful technique that, among other uses, allows one to quickly count the number of real solutions of certain sparse polynomial systems. To illustrate our method, we focus on tetranomials of high degree, and a new extremal 2x2 system. Cute discriminant animations will be shown, along with new explicit complexity bounds. Parts of this work were derived in collaboration with Martin Avendano, Joel Gomez, Andrew Niles, and Korben Rusek. (Received August 14, 2009)

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