

**ARCHIMEDEAN QUADRATIC MODULES. A
DECISION PROCEDURE IN DIMENSION TWO**

E. CABRAL
UNIVERSITÄT KONSTANZ
KONSTANZ, GERMANY

For $h_1, \dots, h_m \in \mathbb{R}[X_1, X_2]$ such that the subset of \mathbb{R}^2 given by $h_1 \geq 0, \dots, h_m \geq 0$ is compact, we present an efficient algorithm to test if h_1, \dots, h_m define an archimedean quadratic module (see abstract of A. Prestel's talk).