

1077-37-172

Joseph H. Silverman*, Mathematics Department - Box 1917, Brown University, Providence, RI 02912, and **Michael Zieve**, Mathematics Department, University of Michigan, Ann Arbor, MI.

Algebra, Geometry, and Dynamics of Pseudo-Real Maps. Preliminary report.

Let L/K be a separable quadratic extension of fields, for example \mathbb{C}/\mathbb{R} , and let $\text{Gal}(L/K) = \{1, \sigma\}$. A rational map $\phi(z) \in L(z)$ is L/K -pseudo-real if there is a fractional linear transformation $f(z) \in L(z)$ such that $\phi^\sigma = f^{-1} \circ \phi \circ f$. With an eye towards dynamical applications, in this talk I will explain how a \mathbb{C}/\mathbb{R} pseudo-real map induces an algebraic map on the real projective plane $\mathbb{R}\mathbb{P}^2$ and will discuss how this generalizes to general pseudo-real maps. (Received August 07, 2011)