

**UIC Model Theory Seminar, August 31, 2004**  
**Defining the reals in expansions of the complex field**

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For  $S$  a subset of  $\mathbb{R}^{2n}$ , we can identify  $S$ , in the usual way, with a subset  $S^*$  of  $\mathbb{C}^n$ . In an old paper, I proved that if  $S$  is semialgebraic, then either  $S^*$  is constructible or the reals are definable in  $(\mathbb{C}, +, \cdot, S^*)$ .

I will review the proof and some mild generalizations that should serve as a cautionary tale for some of Zilber's program.