

## Logic Seminar

### *Distality Rank*

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**Abstract:** We develop distality rank as a property of first-order theories and give examples for each rank  $m$  such that  $1 \leq m \leq \omega$ . For NIP theories, we show that distality rank is invariant under base change. We also define a generalization of type orthogonality called  $m$ -determinacy and show that theories of distality rank  $m$  require certain products to be  $m$ -determined. Furthermore, for NIP theories, this behavior characterizes distality rank  $m$ .

Tuesday, October 29 at 3:30 PM in 427 SEO