

Department of Mathematics, BGU

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# Logic, Set Theory and Topology

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*On Tuesday, December ,29 2015*

*At 12:15 – 13:40*

*In Math 101-*

Salma Kuhlmann (Universität Konstanz)

will talk about

## **Quasi-order- minimality: a uniform approach to o-minimality, C-minimality, p-minimality and variants thereof**

Abstract: In the note “Quasi-Ordered Fields” by S. M. Fakhruddin [JPAA 45 (1987) [207-210 the author introduces the notion of a quasi-ordered (q.o.) field and shows the following dichotomy: a q.o. field is either an ordered field or a Krull valued field. We take this approach further to exhibit a theory of q.o. convex valuations. Classical results on (order) convex valuations can be reformulated for q.o. convex valuations in a natural way. In particular, this provides an elegant and uniform treatment of lifting of orderings, coarsening and composition of valuations. In this talk, I will explain the above, focusing on a new concept of “q.o.-minimality” generalizing several existing minimality notions.