Title: Stably Embedded Ordered Abelian Groups.

Abstract: It is well known that a theory is stable if and only if all types are definable. In an unstable context, we can ask (like Cubides and Delon in [2]) over which models M of a given theory all types are definable. These models are exactly the models which are stably embedded in all elementary extensions (SE for short). In this talk, we will try to understand SE ordered abelian groups G. For this, we will restrict our study to a well-behaved subclasse $\mathcal{C}$ for which we will describe a language of (relative) quantifier elimination derived from the language of Clukers and Halupczok [1]. Then, we will state our main result, which has the form of a transfer principle: an ordered abelian group in $\mathcal{C}$ is SE if and only if it is maximal, the spine is SE and the regular classes are SE. This is a joint work with Martina Liccardo (University of Naples) and Martin Hils (University of Münster).

References

[1] Raf Cluckers and Immanuel Halupczok. Quantifier elimination in ordered abelian groups. *Confluentes Math.*, 3(4):587–615, 2011.

[2] Pablo Cubides Kovacsics and Françoise Delon. Definable types in algebraically closed valued fields. *MLQ Math. Log. Q.*, 62(1-2):35–45, 2016.