We will continue online on Thursday, **November 12th, at 1pm on ZOOM platform** (for information how to acces seminar and next programme visit
this page
) by the talk:

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Model-theoretic stability and superstability in classes of modules

Abstract:
Dividing lines in complete first-order theories were introduced by Shelah in the early seventies. A dividing line is a property such that the classes satisfying such a property have some nice behaviour while those not satisfying it have a bad one. Two of the best understood dividing lines are those of stability and superstability.
In this talk, I will study the notion of stability and superstability in abstract elementary classes of modules with respect to pure embeddings, i.e., classes of the form $(K,\leq_p)$ where K is a class of R-modules for a fixed ring R and $\leq_p$ is the pure submodule relation. In particular, using that the class of p-groups with pure embed- dings is a stable AEC, I will present a solution to Problem 5.1 in page 181 of Abelian Groups by Laszlo Fuchs. Moreover, I will show how the notion of superstability can be used to give new characterizations of noetherian rings, pure-semisimple rings, and perfect rings.