▶ SAMUEL BRAUNFELD, JAROSLAV NEŠETŘIL, PATRICE OSSONA DE MENDEZ, AND SEBASTIAN SIEBERTZ, *Low covers of graph classes preserve stability and NIP*. Computer Science Institute, Charles University, Malostranské nám. 25, 118 00 Praha 1, Czechia.
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This talk will describe a connection between model theory and structural graph theory. The *low covers* construction allows for describing graphs from a given class as locally looking like graphs from a simpler class, and has been a key tool in the theory of sparse graph classes. We describe how the model-theoretic properties of stability and NIP are preserved by this construction, thus lifting local structure to global structure. This opens the way to extending techniques from graph sparsity theory to analyze model-theoretically tame graph classes.

[1] Samuel Braunfeld, Jaroslav Nešetřil, Patrice Ossona de Mendez, and Sebastian Siebertz, *Decomposition horizons: from graph sparsity to model-theoretic dividing lines*, ***arXiv preprint***, arXiv:2209.11229 (2022).