Mathematics, Statistics, and Computer Science   **@ UIC**

Midwest Model Theory Day

Fraisse constructions in the free group

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Abstract: In an influential paper Fraisse obtained the ordered rationals as a limit of finite linear orders through amalgamations. Furthermore his construction implied the (ultra)-homogeneity, the countability and universality of the limit structure. Since then various adaptations of Fraisse's method had given very interesting examples in many mathematical disciplines. The random graph in graph theory and Philip Hall's universally locally finite group in group theory to name a few. In joint work with Kharlampovich and Myasnikov we look into the possibility of applying Fraisse constructions in classes of groups that played a central role in answering Tarski's question on nonabelian free groups. In particular, we modify Fraisse's method to prove that nonabelian limit groups form a   -Fraisse class and finitely generated elementary free groups form an elementary-Fraisse class.

This talk is part of Midwest Model Theory Day, http://homepages.math.uic.edu/~freitag/MWMT13

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