

Scientific report

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May 2012, Luminy

The purpose of my short visit was to attend the 5th Young Set Theory Workshop at CIRM in Luminy. During the workshop I attended four tutorials - Walks on ordinals and their characteristics by Stevo Todorčević, Some applications of set theory to operator algebras by Ilijas Farah, Introduction to Effective Descriptive Set Theory by Alain Louveau and Forcing iterations with finite side conditions by Itay Neeman - as well as lectures by invited postdoctoral fellows, among others Carlos Martinez-Ranero, Christina Brech and Vera Fischer.

During discussion sessions, I talked mainly to Stevo Todorčević and Lionel Nguyen Van Thé. We discussed generalizing connections between topological dynamics and precompact expansions of finite substructures of countable structures to uncountable structures. The results will be published in a forthcoming paper. Further, we discussed a new Ramsey-like characterization of amenability of groups of automorphisms. The goal is to characterize those structures whose groups of automorphisms are uniquely ergodic, it means their universal minimal flow carries a unique invariant probability measure. We will meet with Lionel Nguyen Van Thé at the 2nd Workshop on Homogeneous Structures held in Prague in July, 2012, where we will continue discussions.