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One Graph-Theorist's Perspective on the Quest for Dichotomy, a Personal Account

Pavol Hell

Simon Fraser Un., School of Computing Science

Abstract: In 2017 Andrei Bulatov and Dimitriy Zhuk independently proved the Dichotomy Conjecture for Constraint Satisfaction Problems, 30 years after it was proposed by Tomas Feder and Moshe Vardi. The methods involved deep results in algebra and logic, but also many combinatorial insights. Moreover, a result in algorithmic graph theory was one of the two main motivations for the Feder-Vardi conjecture. I will describe this connection and offer personal reminiscences on how it came about. If time permits, I will also discuss some recent work and open problems on other versions of graph dichotomy.

Date: Thursday, May 16, 2024, 10:00 (Part of “Graphs, Groups, and Automata” workshop)

Location: Boğaziçi University, Kandilli Campus, Üsküdar-İstanbul