

A model theoretic approach to sparsity

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Lecture 1: Thursday, July 23, 15:00 - 16:00 Zoom ID: 677 429 46227 Lecture 2: Thursday, July 30, 15:00 - 16:00 Zoom ID: 695 437 66775

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Abstract: What does it mean for a structure to be *sparse* or *dense*? What is the point of differentiating between sparse and dense structures? Is there an objective and essential boundary between sparse and dense structures? The aim of this talk is to address, at least partially, these questions, from the points of view of model theory, structural graph theory, and theoretical computer science.



Patrice Ossona de Mendez is a French mathematician specializing in topological graph theory, who works as a researcher at the Centre national de la recherche scientifique in Paris, and as a joint professor in University of Charles and Zhejiang Normal University. He has been editor-in-chief of the European Journal of Combinatorics since 2009. With Jaroslav Nešetřil, he is the author of the book Sparsity: Graphs, Structures, and Algorithm, concerning the properties and applications of different types of sparse graph.