

Ypatia 2022 - June 8-10, 2022

vendredi 10 juin 2022

Abstract: Tensors are ubiquitous in several areas of pure and applied mathematics since they are used to represent multi-linear maps as well as storing data. Their additive decompositions provide convenient ways to handle, compress and classify tensors. In this talk, I will present an algebro-geometric framework for studying tensor decompositions through secant varieties and 0-dimensional schemes. I will give an overview on some recent results (on general ranks and identifiability of tensors) and challenging open problems (such as complexity of matrix multiplication tensor) within this fruitful area of applied algebraic geometry. (15:55 - 16:15)