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Title:
Dynamics and Complexity of the Schelling segregation model

Abstract: We will consider the Schelling segregation model for two different populations. The model defines a tolerance criterion on the neighborhood of an individual, indicating wether he is able to move or not to a new place.
Next, the model chooses which of the available unhappy individuals really moves. In this lecture I will study the patterns generated by the dynamical evolution of the Schelling model in terms of various parameters such as the size of the neighborhood, the tolerance and the initial ratio of two populations. To study that we introduce an energy associated to the dynamics. Moreover, we will study the prediction complexity,
that is, if there exist exponnential faster algorithms to know wheter or not a precise individual will change its place.
This is a joint work with Nicols Goles-Domic and Sergio Rica.