

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE
UNIVERSITY OF SOUTHERN DENMARK, ODENSE

COMPUTER SCIENCE COLLOQUIUM

Editing to two graph classes

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Abstract:

The talk introduces a graph edge-modification problem called (D, S) -Editing, where the goal is to transform a given graph into a disjoint union of two graphs, one from D and the other from S , using as few edge insertions and deletions as possible. The problem generalizes the Clique Editing problem, where D consists of all cliques and S consists of all independent sets. Similarly to Clique Editing, we require the class D to be dense and S to be sparse. In the first part of the talk I will discuss several approaches to these density requirements - our aim is to restrict the classes as little as possible while having a separation between the classes. In the second part I will present our results on (D, S) -editing from parameterized complexity, approximation, and online perspective.

(Joint work with Rastislav Královíř and Sebastian Ordyniak.)

Host: Kim Skak Larsen