

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

COMPUTER SCIENCE COLLOQUIUM

AVD coloring and entropy compression.

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IMADA's Seminar Room

Abstract:

A proper edge coloring of a graph is 'adjacent vertex distinguishing' (AVD) if no two adjacent vertices see the same set of colors. Using a clever application of the Local Lemma, Hatami (2006) proved that every graph with maximum degree D and no isolated edge has an AVD edge coloring with $D + 300$ colors, provided D is large enough. In this talk, I will outline a proof that $D + 19$ colors are enough, using entropy compression techniques. This is motivated by the conjecture that $D + 2$ colors are in fact enough. Joint work with Gwenael Joret.

Host: Jørgen Bang-Jensen