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

COMPUTER SCIENCE COLLOQUIUM

Orientations and connectivity

Florian Hoersch
Instittute of Mathematics
Technische Universitat Ilmenau, Germany

Monday, 29 August, 2022 at 10:15
IMADA's Seminar Room

Abstract:

A fundamental theorem of Nash-Williams from 1961 states that a graph has a k-arc-connected orientation if and only if it is $2k$-edge-connected. Since then, numerous possibilities of extending this theorem have been considered. Among others, possibilities to impose extra conditions on the orientation in Nash-Williams' theorem, a stronger, more local form of Nash-Williams' theorem and efforts to obtain analagous results for vertex-connectivity will be discussed. I willl describe recent developments, mainly negative complexity results. If time allows, I will show one of the reductions.

Host: Jørgen Bang-Jensen