DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE
ODENSE UNIVERSITY

# COMPUTER SCIENCE COLLOQUIUM

## Decomposition of Graphs and Digraphs

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**The Seminar Room**

**Abstract:** In the talk we shall consider questions of the type: Let $p$ be a parameter for a graph or digraph and let $s, t \geq 1$ be integers. Does there exist a smallest number $p(s,t)$ such that the vertex set of any graph or digraph $G$ with $p(G) \geq p(s,t)$ has a partition $(A, B)$ satisfying $p(G(A)) \geq s$ and $p(G(B)) \geq t$ where $G(X)$ denotes the subgraph or subdigraph of $G$ induced by $X$?

We discuss this question for several parameters like maximum degree, minimum degree, connectivity or chromatic number and give a survey of some results and open problems.

Bjarne Toft