

Oberseminar Theoretische Informatik
Wintersemester 2006/07

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Consecutive Ones Submatrix Problems

Mo, 18.12.2006 um 14 Uhr (c.t.) im SR 226 (Carl-Zeiß-Str. 3, 2. Stock).

We develop a refinement of a forbidden submatrix characterization of 0/1-matrices fulfilling the Consecutive Ones Property (C1P). This novel characterization finds applications in new polynomial-time approximation algorithms and fixed-parameter tractability results for the problem to find a maximum-size submatrix of a 0/1-matrix such that the submatrix has the C1P. Moreover, we achieve a problem kernelization based on simple data reduction rules and provide several nontrivial search tree algorithms. Finally, we derive inapproximability results.

Internetseite der Veranstaltung:

<http://theinf1.informatik.uni-jena.de/teaching/ws0607/oberseminar-ws0607>