

Oberseminar Theoretische Informatik
Sommersemester 2006

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**Minimum Membership Set Covering and the
Consecutive Ones Property**

Mo, 26.06.2006 um 14 Uhr (s.t.) im SR 226 (Carl-Zeiß-Str. 3, 2. Stock).

The Minimum Membership Set Cover problem has recently been introduced and studied in the context of interference reduction in cellular networks. It has been proven to be notoriously hard in several aspects. Here, we investigate how natural generalizations and variations of this problem behave in terms of the consecutive ones property: While it is well-known that classical set covering problems become polynomial-time solvable when restricted to instances obeying the consecutive ones property, we experience a significantly more intricate complexity behavior in the case of Minimum Membership Set Cover. We provide polynomial-time solvability, NP-completeness, and approximability results for various cases here. In addition, a number of interesting challenges for future research is exhibited.

Internetseite der Veranstaltung:

<http://theinf1.informatik.uni-jena.de/teaching/ss06/oberseminar-ss06>