



Fakultät für Ingenieurwissenschaften und Informatik

Informatik-Fachvortrag

Freitag, den 25. Juni 2010, 13.30 Uhr
Universität Ulm, Oberer Eselsberg
Gebäude O27, Raum 531

Herr Dr. Raghavendra Rao
Naturwissenschaftlich-technische Fakultät, Universität Saarbrücken

spricht zum Thema

On the Complexity of Matroid Isomorphism Problem

We study the complexity of testing if two given matroids are isomorphic. The problem is easily seen to be in Σ^P_2 . In the case of linear matroids, which are represented over polynomially growing fields, we note that the problem is unlikely to be Σ^P_2 -complete and is coNP-hard. We show that when the rank of the matroid is bounded by a constant, linear matroid isomorphism, and matroid isomorphism are both polynomial time many-one equivalent to graph isomorphism.

Further, we show that the graphic matroid isomorphism problem is polynomial time equivalent to the graph isomorphism problem.

This is a joint work with Jayalal Sarma M. N.

Es laden ein die Dozenten der Fakultät für Ingenieurwissenschaften und Informatik.

Ulm, den 07.06.2010

gez. Prof. Dr. J. Torán