

WiOpt 2016 – Invited Talk

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Title:

Truthful Mechanisms, Sybil Attacks, Counter Measures

Abstract:

Fairness and incentives are two important components for cooperation in distributed systems where each agent is selfish but rational. Truthfulness alleviates the possibility for malicious agents to manipulate the market. Many truthful mechanisms have been designed for various applications such as spectrum allocation and crowdsensing. Sometime, a selfish agent can get an unfair advantage by pretending to be two or more agents. These are known as Sybil attacks. We review several well-known mechanisms, investigate their truthfulness, vulnerability to Sybil attacks, and counter measures.