



## Institute colloquium

# **[Canceled] How computer science informs modern auction design**

**Tim Roughgarden (Columbia University)**

**Host: Dan Alistarh**

Over the last twenty years, computer science has relied on concepts borrowed from game theory and economics to reason about applications ranging from internet routing to real-time auctions for online advertising. More recently, ideas have increasingly flowed in the opposite direction, with concepts and techniques from computer science beginning to influence economic theory and practice.

In this lecture, Tim Roughgarden will illustrate this point with a detailed case study of the 2016-2017 Federal Communications Commission incentive auction for repurposing wireless spectrum. Computer science techniques, ranging from algorithms for NP-hard problems to nondeterministic communication complexity, have played a critical role both in the design of the reverse auction (with the government procuring existing licenses from television broadcasters) and in the analysis of the forward auction (when the procured licenses sell to the highest bidder).

**Monday, May 18, 2020 04:00pm - 05:00pm**

IST Austria Campus Raiffeisen Lecture Hall, Central Building



This invitation is valid as a ticket for the IST Shuttle from and to Heiligenstadt Station. Please find a schedule of the IST Shuttle on our webpage: <https://ist.ac.at/en/campus/how-to-get-here/> The IST Shuttle bus is marked IST Shuttle (#142) and has the Institute Logo printed on the side.