

Vigyan Vidushi 2023

Mathematics



Professor Kavitha Telikepalli is a member of the STCS faculty at TIFR. She did her B.Tech. in Computer Science and Engineering from IIT Madras and her PhD in Computer Science from TIFR. She worked for a few years at IISc, Bangalore and then moved to TIFR. Her main research interests are in efficient graph algorithms and combinatorial optimization.

Is it easy to be fair?

Fair division of goods among competing agents is a fundamental problem in economics and computer science. The goal of this problem is to distribute m goods among n agents in a "fair" manner, where every agent has a valuation for every subset of goods. A well-studied notion of fairness is envy-freeness, i.e., no agent values another agent's bundle more than her own. However envy-free allocations need not exist when goods are indivisible.

An interesting relaxation of envy-freeness for indivisible goods is "envy-freeness up to any good" (EFX). In any EFX allocation, no agent envies another after the removal of any single good from the latter's bundle. Do EFX allocations always exist? We do not yet know the answer to this question. In this talk we will discuss some known results for EFX allocations.

6 July 2023 at 4:00 pm (AG-66)