

NYU Stern School of Business
Department of Information, Operations & Management Sciences
OPERATIONS MANAGEMENT RESEARCH SEMINAR

TOPIC: Unbalanced random matching markets: the stark effect of competition

SPEAKER: Yash Kanoria (Columbia)

DATE: Wednesday, September 3, 2014

TIME: 9:30 AM - 10:30 AM

PLACE: KMC 4-80

ABSTRACT

We study bilateral matching markets such as marriage markets, labor markets, and school/college admissions, that allow participants to form partnerships with each other for mutual benefit. We study competition in matching markets with random heterogeneous preferences. First, we find that such markets are extremely competitive. In unbalanced markets, each agent on the short side of the market is matched to one of his top preferences and each agent on the long side does almost no better than being matched to a random partner. Second, we find that even the slightest imbalance leads to competition that yields an essentially unique stable matching. Our results suggest that any matching market is likely to have a small core, explaining why empirically small cores are ubiquitous. We obtain broadly similar results in random assignment markets (matching markets with transfers).

Joint work with Itai Ashlagi and Jacob Leshno; and Daniela Saban and Jay Sethuraman.

BIO

Yash Kanoria is a member of the faculty in the Decision, Risk and Operations division at Columbia Business School, where he has been since July 2013. His research interests include matching markets, market design and networks. Previously, he obtained a BTech from IIT Bombay in 2007, a PhD in Electrical Engineering from Stanford in 2012, and spent a year at Microsoft Research New England during 2012-13 as the Schramm postdoctoral fellow.