Abstract:
The theory of two-sided matching markets has led to successful marketplace designs for school/college admissions, residency matching etc. Online matching platforms (AirBnb, Uber, Upwork, etc.) offer exciting new opportunities.

Stability is used often as an equilibrium concept in such markets, where agents on both sides of the market have preferences over potential matches. I start by showing that matching markets are extremely competitive and typically have a unique stable matching (with Ashlagi and Leshno). This raises the question of how the composition of the market determines the choice each agent has. In a working paper (with Ashlagi, Braverman and Shi) we analyze two-sided markets with tiers and study how much search effort is needed to find the stable matching. We find a “small” amount of search effort suffices, if each agent reaches out to his most desirable potential matches among those who have slightly less market power than his own. Interestingly, agents should wait for dream matches to reach out to them.

Bio:

Yash Kanoria is an Assistant Professor in Business/Decision, Risk and Operations at Columbia Business School, where he has been since July 2013. 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 a Schramm postdoctoral fellow. He is a recipient of the INFORMS JFIG paper competition second prize in 2014.

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