

Warwick Public Lectures

Mathematics & Statistics

MS.01 Zeeman Building

4th May 2023 - 18:15



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Three Puzzles about Pricing and Geometry

As the famous Graham-Buffet quote says "price is what you pay; value is what you get" and every business success or failure is driven by the match or mismatch of the two. We will discuss a simple question in pricing algorithms: how to adjust prices over time to learn a buyer's valuation while minimizing revenue loss. This is a nice puzzle with a surprising solution. We will discuss the Kleinberg-Leighton algorithm and how to generalize it to multi-dimensional settings. There, we will do a detour to convex geometry and the theory of intrinsic volumes. We will also discuss how to measure the length of a potato.

There will be a reception after the lecture, from 19:15 onward