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Títol: The Top Trading Cycles Algorithm and Respecting Improvement in Kidney Exchange Programs

Autor: Flip Klijn (IAE-CSIC/BSE)

Web: <https://sites.google.com/view/flipklijn/>

Abstract: The paper studies the design of allocation rules in Kidney Exchange Programs (KEPs), introducing and analyzing the "respecting improvements" property, which ensures that patients benefit when bringing better or additional donors. Building on the foundational Shapley-Scarf housing market model and the Top Trading Cycles (TTC) algorithm, the authors provide game-theoretic insights and efficient optimization formulations. They highlight that while TTC satisfies the incentive property under strict preferences, standard transplant-maximizing objectives may violate it. The study also includes simulations showing that core allocations strike a good balance between transplant quantity/quality and incentivizing patient participation. The work underscores the importance of patient-donor incentives and proposes core allocations as a promising and practical alternative.

Sobre l'Autor: Flip Klijn és Director i Investigador Científic a l'Institut d'Anàlisi Econòmica ((IAE-CSIC) i *research professor* a la Barcelona School of Economics (BSE). La seva recerca actual s'enfoca al disseny de mecanismes centralitzats per mercats que incorporen l'assignació de bens indivisibles a agents econòmics, així com per a mercats on els béns o serveis s'intercanvien sense transferències monetàries.