

Assignment Exchanges

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Abstract. We analyze “assignment exchanges”- auction and exchange mechanisms which are tight simplifications of direct Walrasian exchange mechanisms. These simplifications are distinguished by their use of assignment messages, which parameterize certain substitutable preferences. The “basic” assignment exchanges respect integer constraints, generalizing the Shapley-Shubik mechanism for indivisible goods. Connections are reported between the assignment exchanges, ascending multi-product clock auctions, uniform price auctions for a single product, and Vickrey auctions. The exchange mechanisms accommodate bids by buyers, sellers and swappers and can support trading for certain kinds of complementary goods.