# Airbnb: A Two Sided Matching Market

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**Abstract**

Airbnb blah blah blah.

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Airbnb and Similar Markets

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## 4.1. Stable Matching Equilibrium

**Preferences**

Women

|        | $w_1$ | $w_2$ |
|--------|-------|-------|
| $m_1$  | 12*   | 2     |
|        | 0.2*  | 4     |
| $m_2$  | 16    | 15    |
|        | 0.1   | 15    |

(Men, along the left vertical axis)

## 4.2. Application in Airbnb Market

Consumers or travelers want to match with the Airbnb hosts and destinations which match their preferences and similarly the hosts/sellers have preferences across consumer types.

For instance, a traveler may prefer locations or neighborhoods, close to the center of city or in the outskirts. Similarly, some travelers have strong preferences for privacy of the space with minimal or no interaction with others, while others may be happy to interact a bit more with the hosts or house keepers. Travelers also prefer interiors of some rooms/homes more than others due to purely visual appeal of some options as opposed to others.

Similarly, the host or seller also has some preferences over consumers such as behavior of guests with housekeepers and tendency for maintenance of cleanliness in living spaces. The host also wants to avoid any consumers who break house rules and in extreme cases, engage in illegal activities such as theft. However, I would argue that typically, consumer preferences across hosts/homes drive this market as opposed to seller preferences across consumers.

Existing mechanisms for optimizing matching of consumers with house owners do exist, such as post-trade, online public reviews by consumers and hosts of each other. Similarly, there are other incentives such as reduced probability of repeated interactions or trade if consumer or seller satisfaction from first experience is low.

Therefore, I build a two sided matching model (see Abdulkadiroglu and Sönmez (2013))

for the Airbnb market, trying to understand how optimal matches can occur in the system. If the matching process is efficiently designed, then matches will maximize consumer and host welfare.

# 5.  Welfare Analysis

# 6. Conclusion

# REFERENCES

**Abdulkadiroglu, Atila and Tayfun Sönmez**, "Matching Markets: Theory and Practice,"
*Advances in Economics and Econometrics*, 2013, *1*, 3–47.