# **Discussion** Speed Acquisition by Shiyang Huang and Bart Zhou Yueshen

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  - Complementarity/substitutability between speed and information
  - Lower cost to acquiring information can reduce "long-run" informativeness
    - Complementarity between speed and information
    - More information makes speed investments more profitable, so there are fewer informed "long-run" investors

- Two assets
  - Risk-free technology
  - Risky asset, terminal payoff

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  - 1. Investors (unit measure)
  - 2. Noise traders
  - 3. Competitive market makers

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Noise traders (each round)

$$U_t \sim N\left(0, \tau_{Ut}^{-1}\right)$$

Competitive market makers
 Set

$$P_1 = \mathbb{E} \left[ V | L_1 \right]$$
$$P_2 = \mathbb{E} \left[ V | L_1, L_2 \right]$$

where

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Ex-ante choices:

- Acquire "speed" (discrete choice, fixed cost)
- Acquire information (continuous signal precision, convex cost)
- "Fast" investors trade at t = 1
- "Slow" investors trade at t = 2

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  - 2.2 Interior (some fast, some slow)
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1. Exogenous speed

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- 2. Exogenous information (interior equilibrium)
  - ► Cheaper to acquire speed ⇒ More investors become "fast"
  - Informativeness at t = 1 goes up
  - Informativeness at t = 2 goes down, then up (non-monotonic)
    - "Fragmentation"

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- 4. Extensions

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  - Who are the "fast" noise traders?
  - If fast traders acquire more information, shouldn't noise traders trade slowly?
  - Doable: Ganguli/Yang 09, Manzano/Vives 11, DP17, and others

- 2. Why competitive risk-neutral market makers?
  - Introduces an unnecessary source of asymmetry
  - "The purpose of having such a market maker is that he helps ensure the trading price p t is always semi-strong efficient (as in Kyle, 1985; and Vives, 1995) and this suits the focus on price informativeness of this study."
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- 3. Why not strategic investors?
  - Fast investors should anticipate the impact on information revelation through prices
  - Information disclosure
  - Kyle 85, Du-Zhu 17

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- 5. Other dimensions of speed?
  - Sniping
  - Contact rates

### **Final Remarks**

- Interesting question and results
- Nice results highlighting the potential mechanisms
  - Complementarity/Substitutability
- Scope to further qualify the role some of the assumptions