

CERGE-EI researchers will present three different topics in economic theory using advanced math tools.

WE INVITE: Math and physics BA/MA students, PhD students, postdocs, researchers, and professors to join us to learn more about the uses of various tools of advanced mathematics in theoretical economics.

Advanced Math in Economics

Three snapshots from CERGE-EI*

Wednesday May 14 from 3.45 to 5.15 pm

Location: Lecture hall K1, Charles University's MFF branch, Sokolovská 49/83, Prague 8–Karlín
(metro station Křižíkova)

I.

Stochastic calculus and wealth inequality

MAREK KAPIČKA (CERGE-EI director)

Rising wealth inequality has motivated numerous tax proposals targeting wealthy individuals aimed at reducing wealth and consumption inequality. Tax proposals typically do not acknowledge that prices and returns will also be affected. How will prices and returns respond to policies, and how will this impact the government's ability to reduce inequality?

II.

Probabilistic inferences save lives

FILIP MATĚJKA (CERGE-EI, ERC grantee)

Emergency room physicians face thousands of critical choices daily. How can we understand their human limitations with math and information economics? Can we gauge their degree of tiredness and identify whether some use more resources than others? Can our research help them to save lives?

III.

Can we game real-world supply chains?

PAOLO ZACHIA (CERGE-EI economist)

The income and well-being of a country depend on how firms are organized within a network of supply chains—from upstream producers to downstream retailers via intermediate suppliers. Economic theory suggests that an economy can operate on a variety of such networks, some of which are inefficient (“bad”) and others more efficient (“good”). What mathematical tools can economic policy leverage to steer the economy toward more desirable network structures?

* CERGE-EI is joint academic workplace of the CERGE at Charles University and the Economic Institute at the Czech Academy of Sciences.
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