# Application to the Digital Economics and AI Tutorial

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## Graduate Studies

I am a third-year PhD student in Economics at the European University Institute, enrolled since September 2023. Beyond the core first-year coursework, I completed the following advanced courses:

Macroeconomics

- Heterogeneous Firms in Macroeconomics
- Public Finance in Macroeconomics
- Learning and Dynamic Contracts in Macroeconomics
- Life-Cycle Heterogeneous Agents Models
- Statistical Approach to Macro-Finance

Microeconomics

- Advanced Industrial Organization
- Lectures on Non-CES Demand Systems
- Empirical Political Economics

Econometrics and Applied Economics

- Machine Learning
- Econometrics of Causality

## Research Projects in Progress (Abstract)

### Artificial Expectations: AI Agents and Market Stability

I study the impact of adopting Generative Artificial Intelligence (GenAI) as an expectation-formation technology on financial market stability. I extend a canonical experimental setup into a framework that: i) assesses whether AI Agents behave as rational agents, human-like learners, or adaptive stabilizers; ii) causally estimates how different AI models, or different ways of using the same model, influence price stability relative to fundamentals; and iii) structurally estimates a "hype susceptibility" parameter capturing a model's propensity to deviate from fundamental valuation. Applying the framework to a set of multimodal large language models (LLMs) from multiple providers, I find that GenAI Agents can act as market stabilizers, though not as fully rational agents, with substantial heterogeneity across architectures and use configurations. The framework is readily extendable to markets with heterogeneous AI participants, endogenous adoption of AI expectation technologies, and multimodal information shocks.

## Research Interests

My research interests center on three themes: (i) how expectations are formed by humans and how AI systems, whether acting as autonomous decision makers or influencing human decision makers, reshape belief formation and market dynamics; (ii) the macroeconomic consequences of endogenous AI production and adoption, including how decisions about what AI technologies to develop and at what pace interact with firms' incentives to use these technologies in production, and how this two way feedback shapes aggregate dynamics; and (iii) the use of AI as a research tool, with an early-stage project on assessing the cost efficiency and trade offs of employing large language models relative to standard machine learning methods for non standard text classification tasks.

## Academic References

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