

Computational Frameworks in Macroeconomics

Lecture 1: Tiziana Assenza (Toulouse School of Economics)

This lecture includes a brief introduction to Agent Based Models (ABMs). The main goal is to provide a critical assessment on ABMs in macroeconomics stressing the main strengths and weaknesses of ABM compared with DSGE.

References:

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Lecture 2: Fabrice Collard (Toulouse School of Economics)

This lecture aims at introducing students with the basics of computational economics and their applications (mainly) to macroeconomic models. The class intends to give the intuition behind the various methods that will be covered, but also to provide with a critical assessment of their use. The class will cover

- 1) Perturbation methods
- 2) Applied dynamic programming
- 3) Polynomial approximations (PEA, Collocations, Galerkin)
- 4) Recent developments and refinement of these methods

References:

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The last reference is particularly useful as it makes reference to a lot of key papers in the macro literature.