2023 - Africa Training Workshop in Computational macroeconomics (AFTW2-2023)

Title: **Solving dynamic equilibrium models**
Date: **December 13-15, 2023**

The workshop will present methods used to solve macroeconomic models. The lecture will focus on dynamic programming, the value function iteration and the perturbation method, with applications to a variety of topics, from the consumption-saving choice to the open-economy dynamic stochastic general equilibrium model. The workshop will cover also essential numerical tools (such as optimization and root-finding algorithms) and coding best practices. The lectures will feature many examples of codes in Julia (free computational software).
This is a graduate-level course for PhD students, scholars, and professionals (with at least a master's degree).

Organizers: Sophie Osotimehin (UQAM) and Prosper Dovonon (Concordia University)

Format: **Fully remote**

Registration fees: 100 USD

Instructors and topics

Solving dynamic equilibrium models
Jesús Fernández-Villaverde (University of Pennsylvania)
- Dynamic programming
- Value function iteration
- Applications to the consumption-saving choice and to a dynamic stochastic general equilibrium model

Essential numerical tools and perturbation analysis
Pablo Winant (ESCP Business School)
- Essential numerical methods
- Key coding skills
- Perturbation method
- Applications to trade and open-economy macroeconomic models.

Schedule
All times below are in Canada/USA Eastern Time.

	Wednesday Dec 13	Thursday Dec 14	Friday Dec 15
6:00am-9:00am Eastern time		Essential numerical tools and perturbation analysis 1 (by Pablo Winant)	Essential numerical tools and perturbation analysis 2 (by Pablo Winant)
10:00am-12:00pm Eastern time	Solving dynamic equilibrium models 1 (by Jesús Fernández-Villaverde)	Solving dynamic equilibrium models 2 (by Jesús Fernández-Villaverde)	Solving dynamic equilibrium models 3 (by Jesús Fernández-Villaverde)