



# State of the ART Economic Analysis

with GTAPinGAMS and GAMS/MPSGE

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June 2–4, 2024  
Balistreri Vinyards  
Denver, Colorado, USA

Sponsored by:  
**La Serra Collective**  
and  
**Balistreri Vinyards**



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J.A. Balistreri Vineyards  
Denver, Colorado  
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## Abstract

This workshop is intended for researchers interested in exploring advanced economic modeling techniques and state-of-the-art software development for general-equilibrium analysis of policy. The workshop is an intensive two-day course. The methodological presentation is advanced, but includes operational open-source models available for application to current research questions. Discussion will include insights into creative extensions and best practices for model development. Sessions will combine lectures on theoretical underpinnings with numerical applications.

## Target group

The workshop is targeted to economists and PhD students interested in policy analysis using state-of-the-art general-equilibrium simulation tools. The workshop is focused on applications in climate and trade policy. Methods covered extend to a diverse set of public policy fields and welfare analysis.

## Expected benefits

Workshop participants will develop practical skills in the art of merging economic theory with data to quantify the economy-wide effects of policy regulations based on quantitative general equilibrium analysis. Participants will be provided data packages and state-of-the-art models along with instruction on their operation within the GAMS language. Ideally, participants gain a working knowledge of an established model that they can apply to their research agenda.

Balistreri Vineyard will host an opening reception and dinner for participants on Sunday evening. Lunches will be provided Monday and Tuesday. At the end of the day on Monday and Tuesday we will have a guided tour, wine tasting, and fine arts presentation to include the activities of La Serra and Balistreri Vineyards. Participants will receive a handmade coffee cup by La Serra Design signifying their participation.

## Requirements and preparation

Participants should be familiar with graduate-level microeconomics including mathematical programming, consumer theory in the primal and dual, producer theory, competitive general equilibrium theory, and the welfare theorems including second-best considerations. Prior to the workshop, participants should be familiar with the GAMS language—tutorials and examples can be downloaded from the GAMS website, [https://www.gams.com/latest/docs/UG\\_MAIN.html#UG\\_Tutorial\\_Examples](https://www.gams.com/latest/docs/UG_MAIN.html#UG_Tutorial_Examples), which also provides a free trial version. There are also several tutorials available on YouTube. A temporary license will be provided to registered participants that extends the capabilities of the free community license. We expect participants to have a laptop with GAMS installed.

## Program

The program of study is broken into four parts each roughly corresponding to one-half day of organized discussion. Morning sessions will begin at 9:30am. Lunch will be provided between 1-2pm. The afternoon session will run from 2-4:30pm. Intermittent breaks in the sessions will include beverages and snacks. The exact schedule and coverage of topics will depend on the previous experience of participants as well as their specific research interests.

At 4:30pm on Monday and Tuesday we will have a guided tour, wine tasting, and fine arts presentation to include the activities of La Serra Collective and Balistreri Vineyards.

## June 2

Opening reception and dinner  
6:30pm–9:30pm

## June 3

### 1. GTAPinGAMS and Climate Policy 2:00pm–4:30pm

- Data management
- Canonical MRIO model
- Carbon and trade

Lunch  
1:00pm–2:00pm

### 2. Advanced Trade Models 9:30am–1:00pm

- Perfect competition and trade in regionally differentiated goods (Armington)
- Monopolistic competition and the extensive margin (Krugman)
- Monopolistic competition with competitive selection (Melitz)

La Serra tour and wine tasting  
4:30pm

## June 4

### 3. Applications: Climate and Trade Policy 9:30am–1:00pm

- Border carbon adjustments
- Optimal unilateral tariffs and tariff wars

Lunch  
1:00pm–2:00pm

### 4. General equilibrium for practitioners 2:00pm–4:30pm

- Mixed complementarity problems (MCP) and general equilibrium
- MPSGE: a powerful tool for developing large-scale general equilibrium models

Balistreri Winery tour and wine tasting  
4:30pm

## Instructors

**Edward J. Balistreri**, Duane Acklie College of Business Yeutter Institute Chair at the University of Nebraska—Lincoln

**Christoph Böhringer**, Professor of Economic Policy at the Carl von Ossietzky University in Oldenburg, Germany.

**Thomas F. Rutherford**, Professor Department of Agricultural and Applied Economics and the Wisconsin Institute for Discovery, University of Wisconsin, Madison.

## Registration

The registration fees are as follows:

\$	<b>600</b>	Graduate students at degree granting institutions
\$	<b>900</b>	Academics at degree granting institution
\$	<b>1,400</b>	Public and private sector professionals

There will be a limit of 15 participants. Enrollment will be on a first-come-first-serve basis.

[Registration Link](#)

The organizers reserve the right to cancel the workshop with a full refund of registration fees. Notification of cancellation will be made before 15 May 2024. Inquiries can be sent to [Edward.Balistreri@UNL.edu](mailto:Edward.Balistreri@UNL.edu).