

# Workshop: High-performance computing for economists

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# ECCO

<http://www.vrdc.cornell.edu/ecco/>

# Clusters

## What are clusters?

- ▶ <http://www.rocksclusters.org/>
- ▶ Torque Job Submission
- ▶ STAR Cluster
- ▶ Oracle (Sun) Grid Engine

# Where are clusters?

- ▶ CAC Private Clusters [Rocks]
- ▶ XSEDE

# Where can I get computers?

- ▶ Buy them (Dell, etc.)
- ▶ Buy a subscription: CAC RedCloud [Eucalyptus]
- ▶ Rent them: Amazon EC2 (STAR cluster)
- ▶ Steal them: Botnet with 450,000 computers
- ▶ Use free ones: CPU scavenging (HTCondorG, SETI@Home)

# Getting access

## ...legally

- ▶ Apply for an account on ECCO
- ▶ Accounts on CAC general cluster no longer available
- ▶ Buy resources at Amazon
  - ▶ 750 hrs/month free for the first year if using Micro instances
  - ▶ 0.615GB , Very Low network performance
- ▶ Apply for an XSEDE account

## Data management

# Basics



## Wrap-up