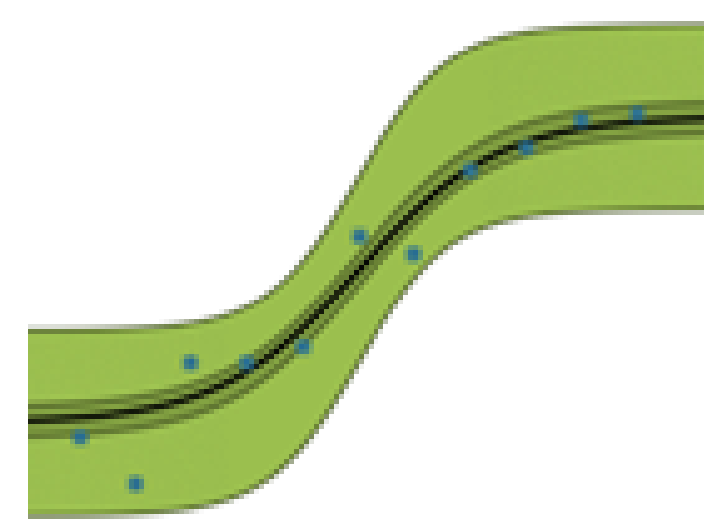


Loyola
Marymount
University

CMSI 4072: 2024

Jurgis Stepenka



MySampleSize

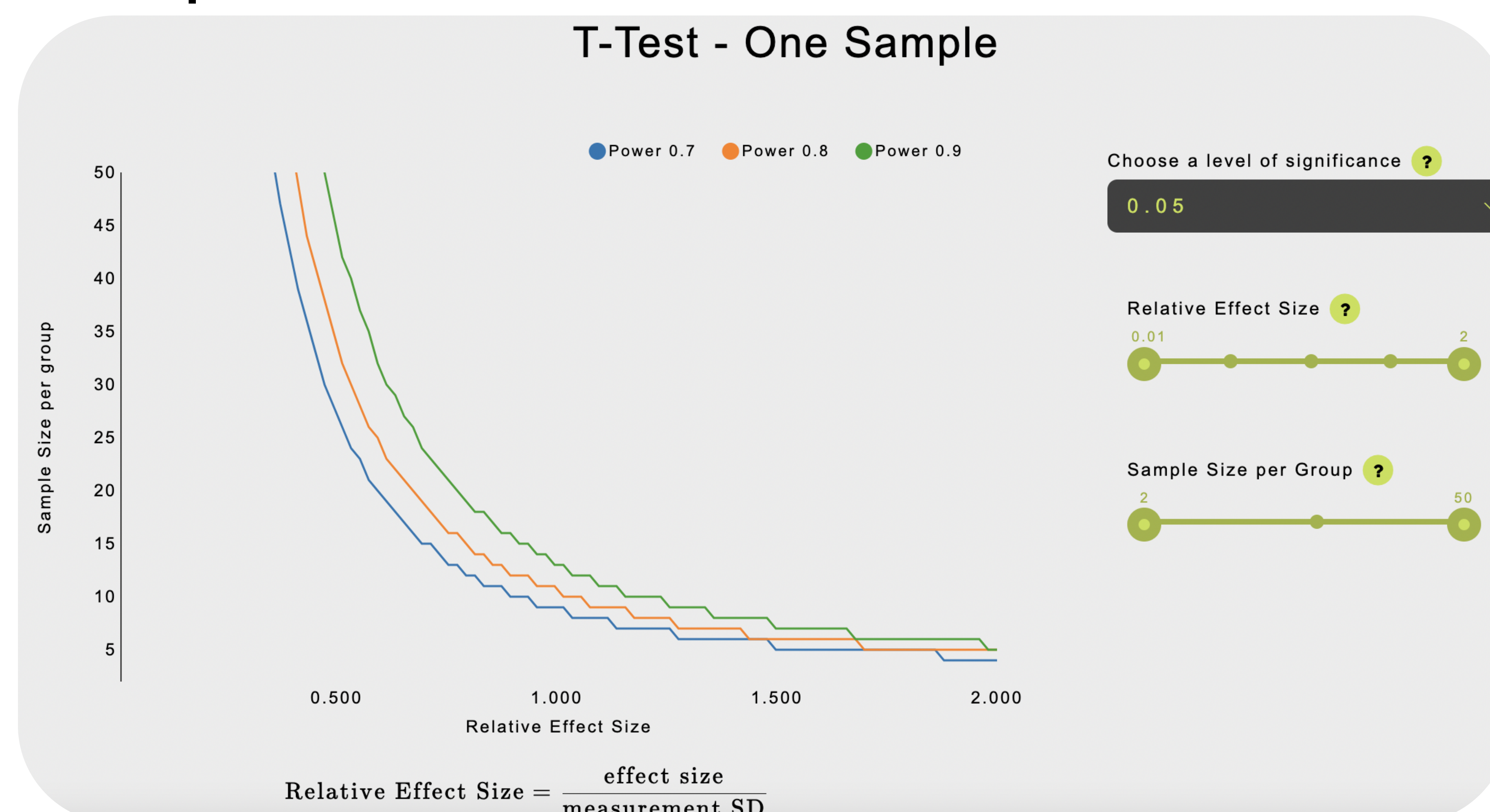
YOUR SCIENCE. OUR TOOLS. FAST RESULTS.

What is MySampleSize?

MySampleSize is a website that aids pre-clinical researchers in experiment design and statistical calculations.

It provides users with the following tools:

- Step-by-step Experiment Design Guide
- Sample Size Calculator
- Power Size Calculator
- Power Plots
- Experiment Simulations
- Random Number Generator
- Data Analysis
- PDF Reports



Why MySampleSize?

- Valuable experience working on an existing project
- Project has real world application and necessity
 - 50% of the annual US preclinical research spend is wasted on non-reproducible experiments (\$28.2 Billion)
 - Project will continue to exist after team is done working on it
- Unique - many similar projects do not offer as many features for free
 - More interactive for unexperienced users

Technologies Used

PDF Generation:

- xhtml2pdf - Converts html into PDF, used in design guide

Webapp:

- Flask - Python web app framework
- Amazon Web Services - Hosts the web app on the internet

Calculations:

- Rpy2 - Generates graphs
- Statsmodels - Provides functions for stats calculations

Languages:

- Python
- JS
- AngularJS
- HTML
- SCSS

