

MATLAB for Data Analysis and Visualization

Hoda Sharifi, PhD
Senior Application Engineer -Education
hsharifi@mathworks.com



Accelerating the Pace of Engineering and Science

We at MathWorks believe in the importance of engineers and scientists.

They increase human knowledge and profoundly improve our standard of living.

We created MATLAB and Simulink to help them do their best work.







Agenda

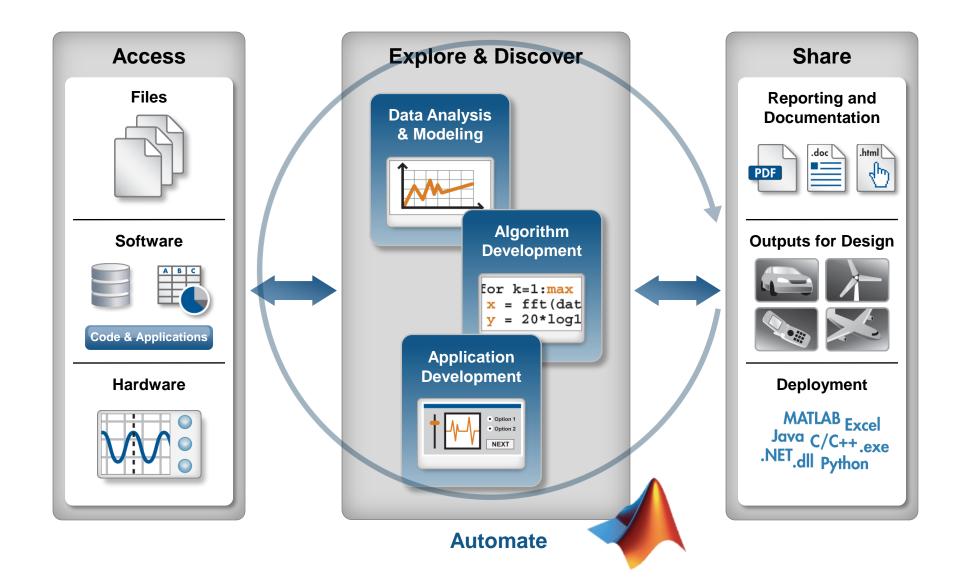
Data Analysis with MATLAB

- Demo
 - Introduction to MATLAB environment
 - Building analysis routines
 - Creating documentation
 - Deploying graphical applications

Resources



Data Analysis Workflow





Demo: Microtiter Plate Fitting

Data Analysis with MATLAB

Objective:

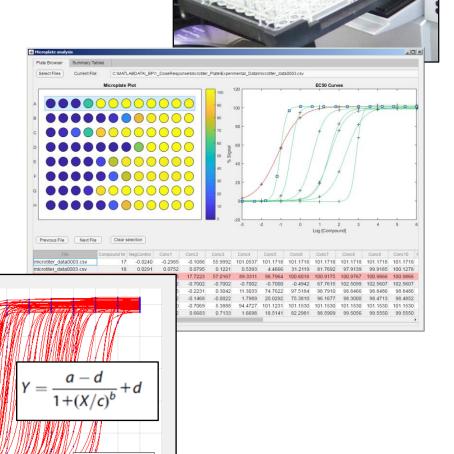
 Find most potent leads by estimating EC50 values to doseresponse curves from 96-well plate microtiter data.

Inputs:

 Dose-response curves from 96-well plate microtiter in for form of CSV files.

Approach:

- Load, visualize, and preprocess data
- Fit data to a four parameter model
- Generate results table for each file
- Automate across hundreds of files
- Share results in a report



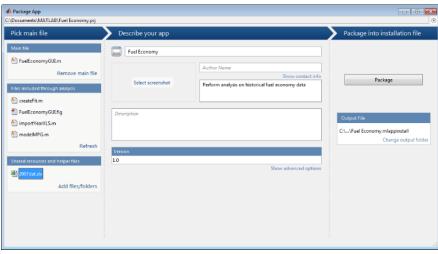
Log10 Concentration of Compound (microMolar



Packaging and Sharing MATLAB Apps

- MATLAB apps
 - Interactive applications to perform technical computing tasks
 - Displayed in apps gallery
- Included in many MATLAB products
- Package your own app
 - Create single file for distribution and installation into gallery
 - Packaging tool:
 - Automatically includes all necessary files
 - Documents required products

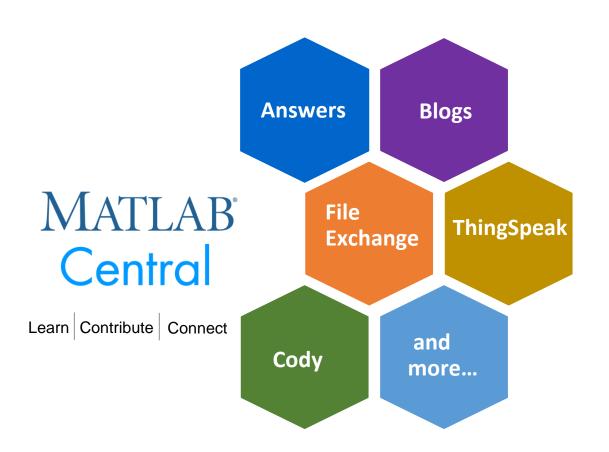






MATLAB Central Community

Every month, over **70K** MATLAB & Simulink users visit MATLAB Central **daily** to get questions answered, download code and improve programming skills.



MATLAB Answers: Q&A forum; most questions get answered in only 60 minutes

<u>File Exchange</u>: Download code from a huge repository of free code including tens of thousands of open source community files

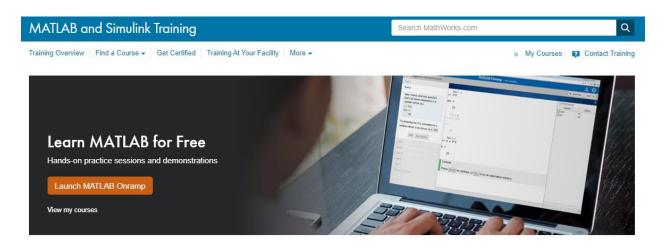
<u>Blogs</u>: Get the inside view from Engineers who build and support MATLAB & Simulink

ThingSpeak: Explore IoT Data

And more for you to explore...



MATLAB Training



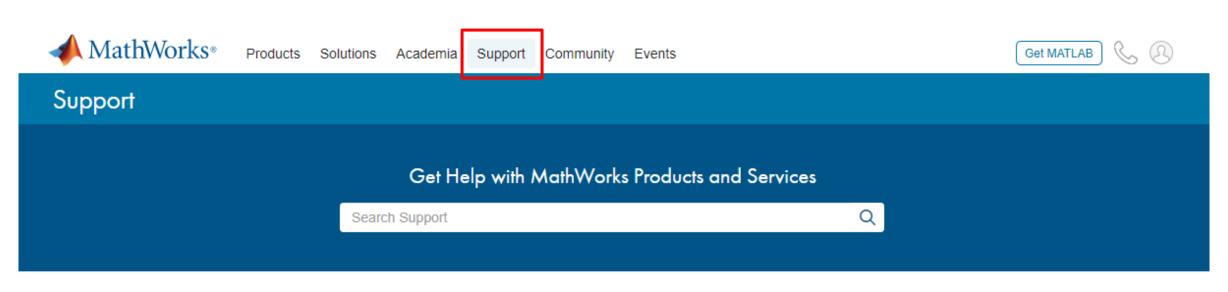
Getting Started



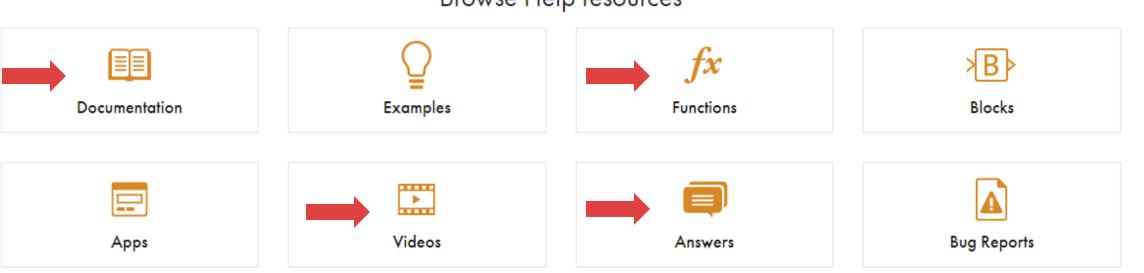


https://matlabacademy.mathworks.com/

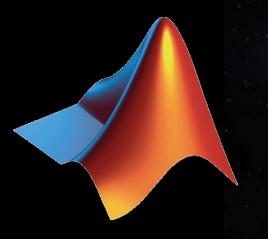




Browse Help resources







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