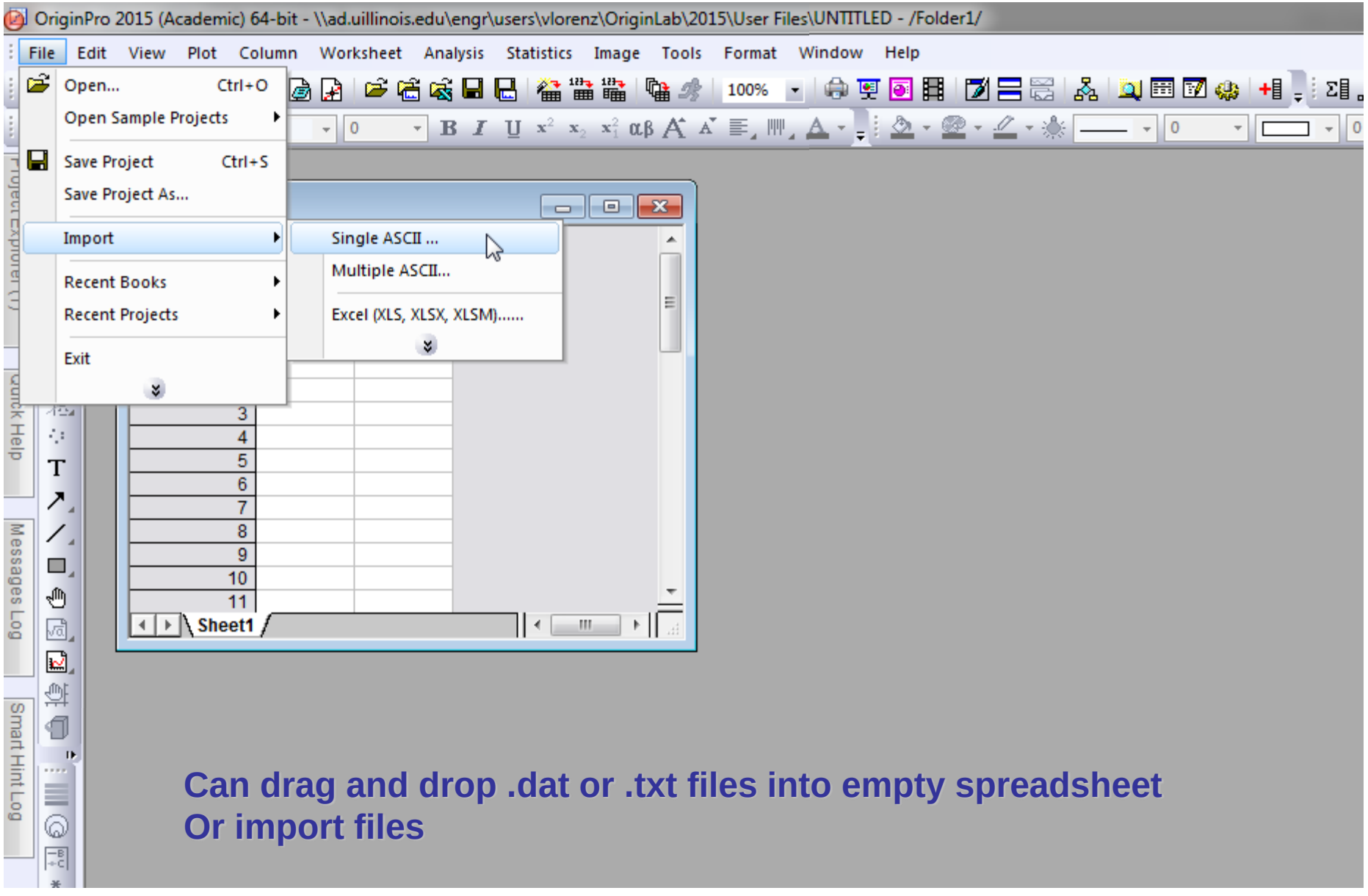
# OriginLab Scientific Graphing and Analysis Software

**Origin is on all Physics 403 computers.**
**What it can do:**

1. **Graphical presentation of data**
2. **Data analysis**
3. **Preparation of publication-quality figures**

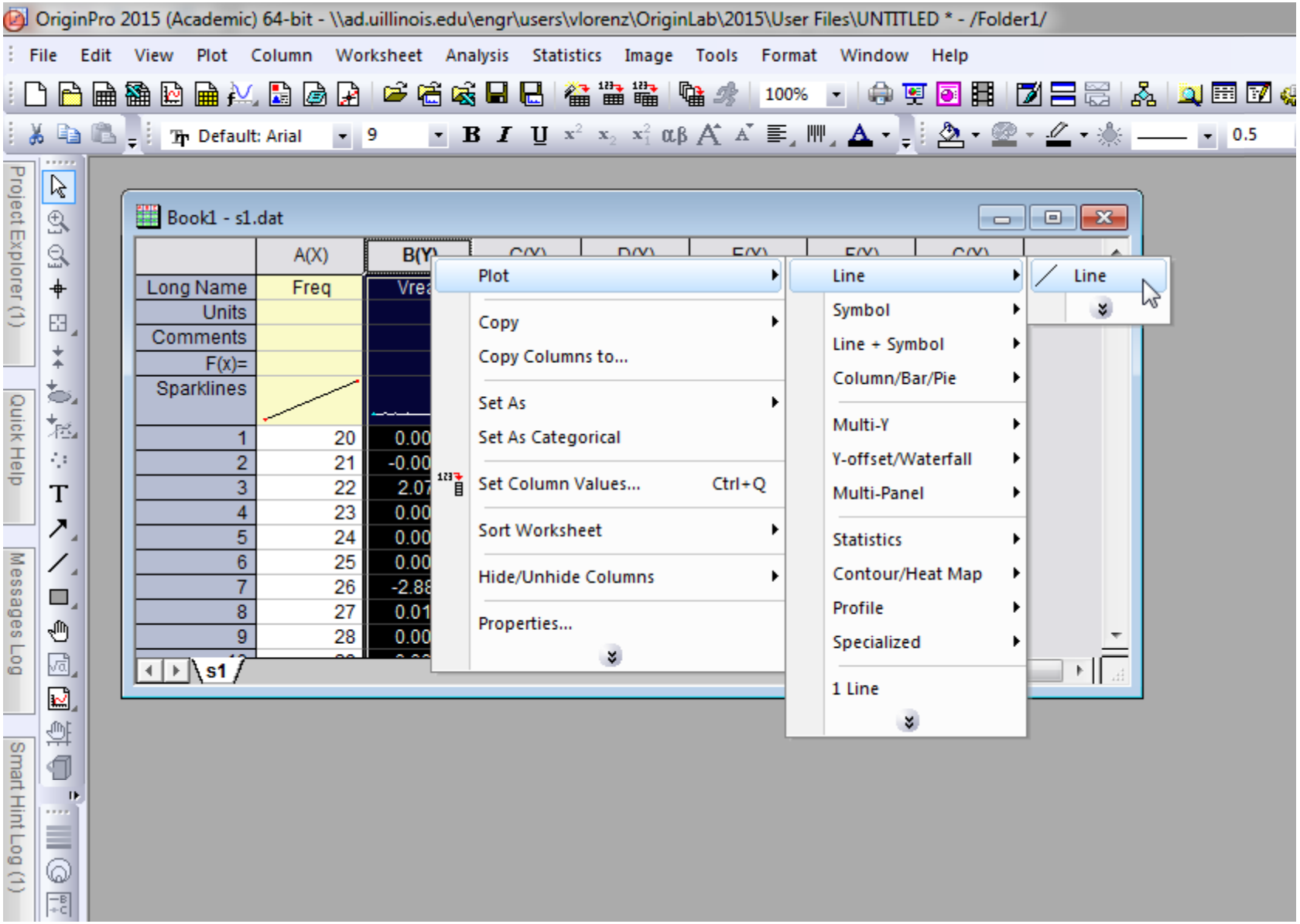
- **Specially designed for scientific graphics**
- **"Standard" Windows application, does not require knowledge of C++ or any other high level computer language**
- **Can write special functions or procedures using Origin programming tools**

# Importing data




**Can drag and drop .dat or .txt files into empty spreadsheet**
**Or import files**

# Graphical presentation of data: Basic Plot



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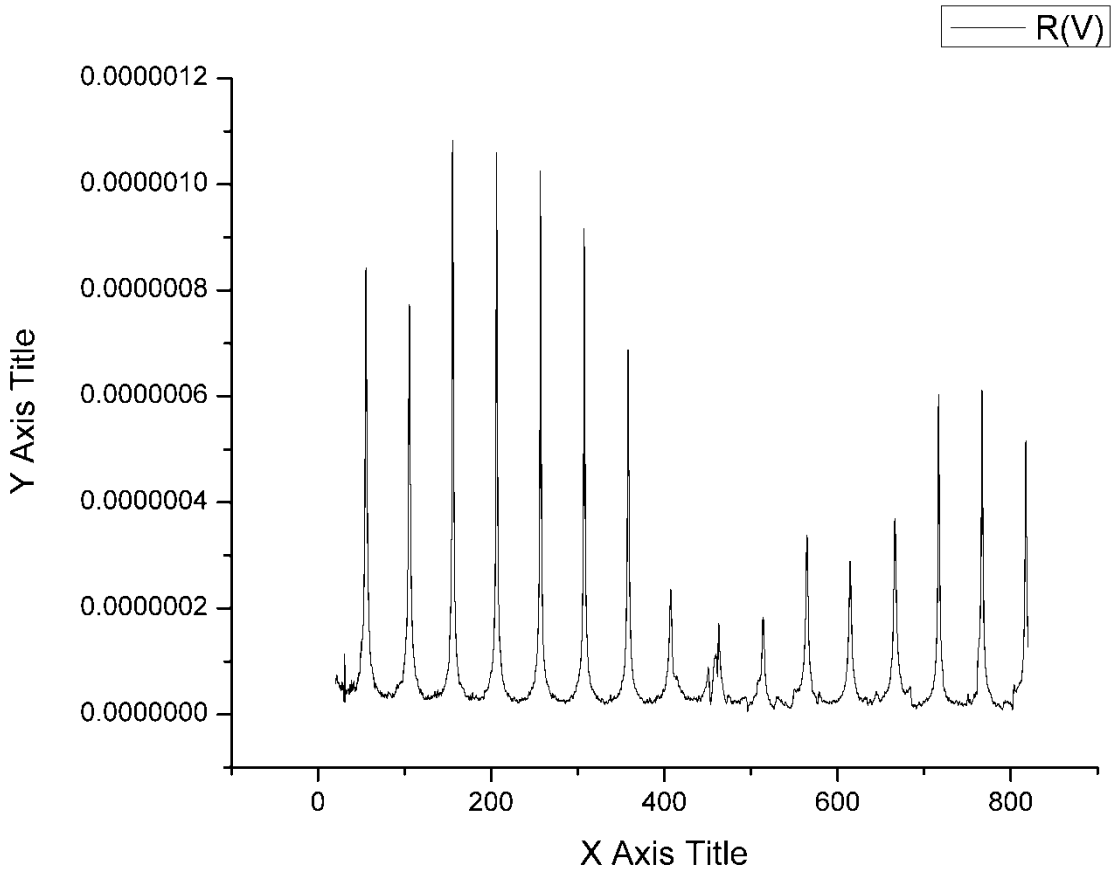
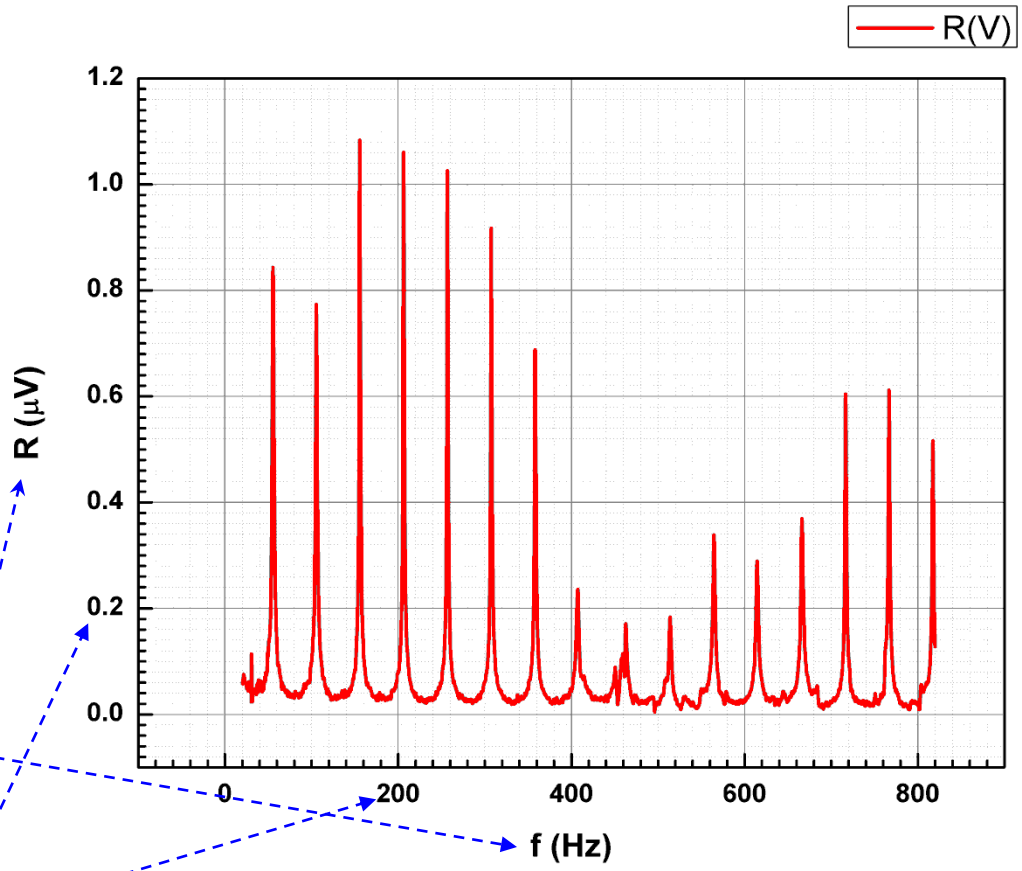


# Graphical presentation of data: Basic Plot



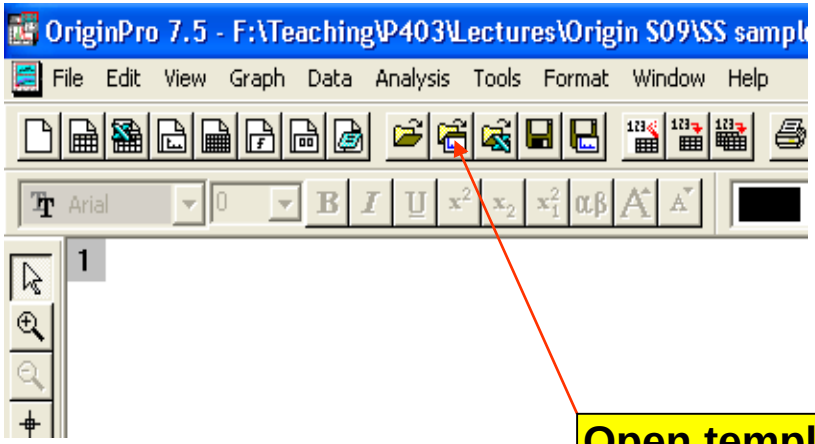

Top and Right axes, grid lines

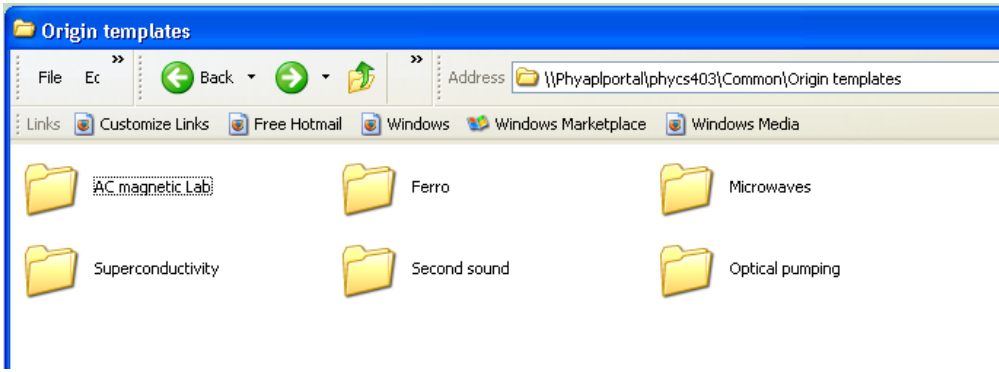
Axes titles

Bold tick labels.

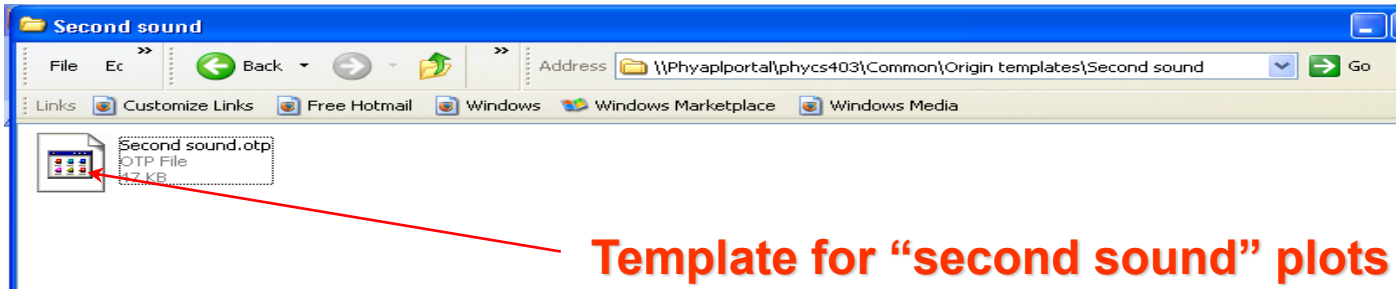
For a better-looking graph, volts were converted to μV

# Graphical presentation of data: Templates



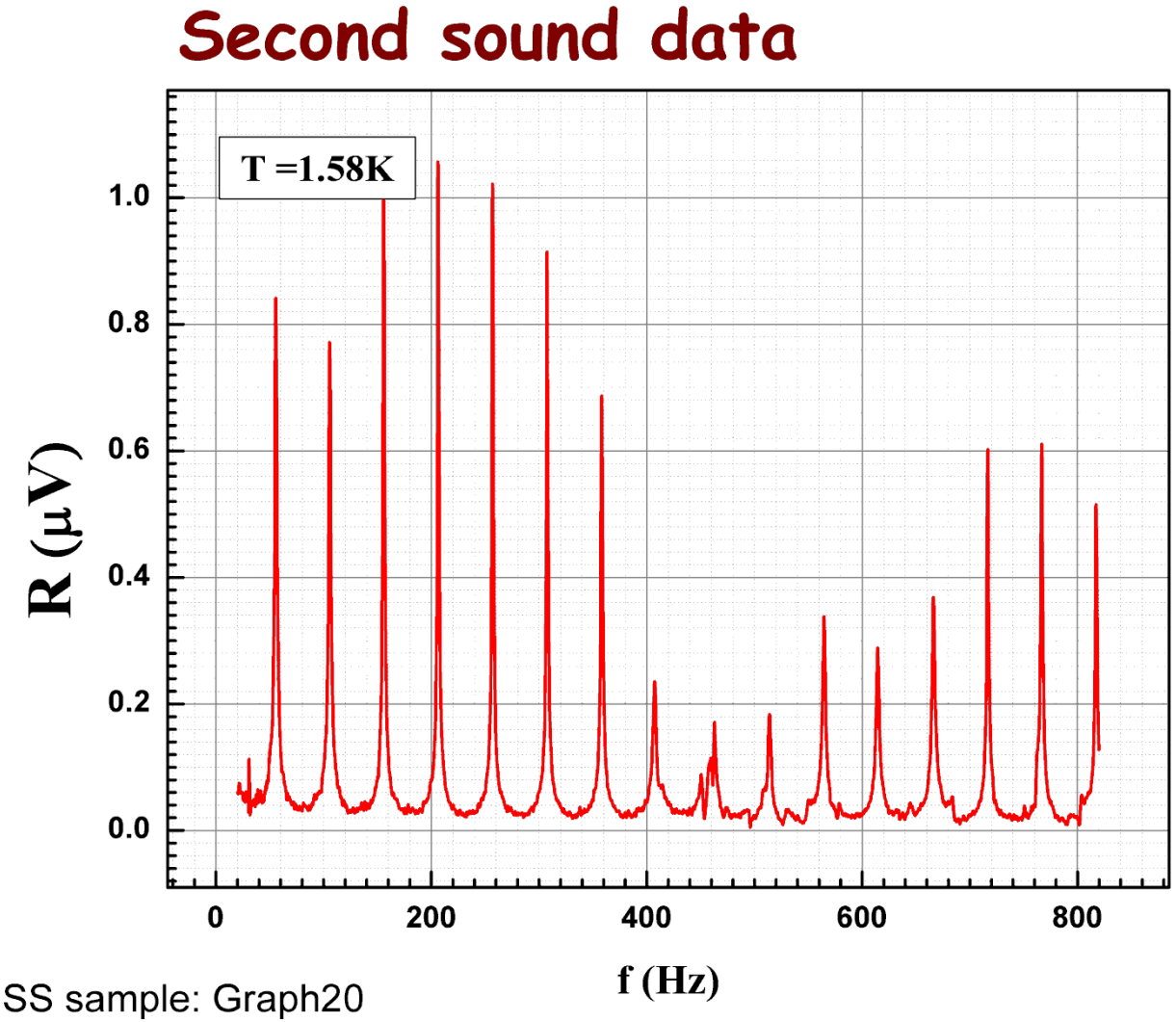




**Open template**



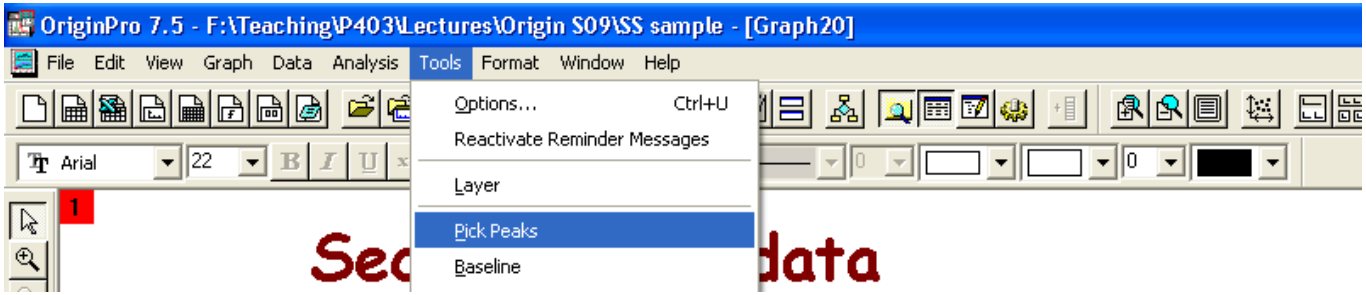

**Template for “second sound” plots**

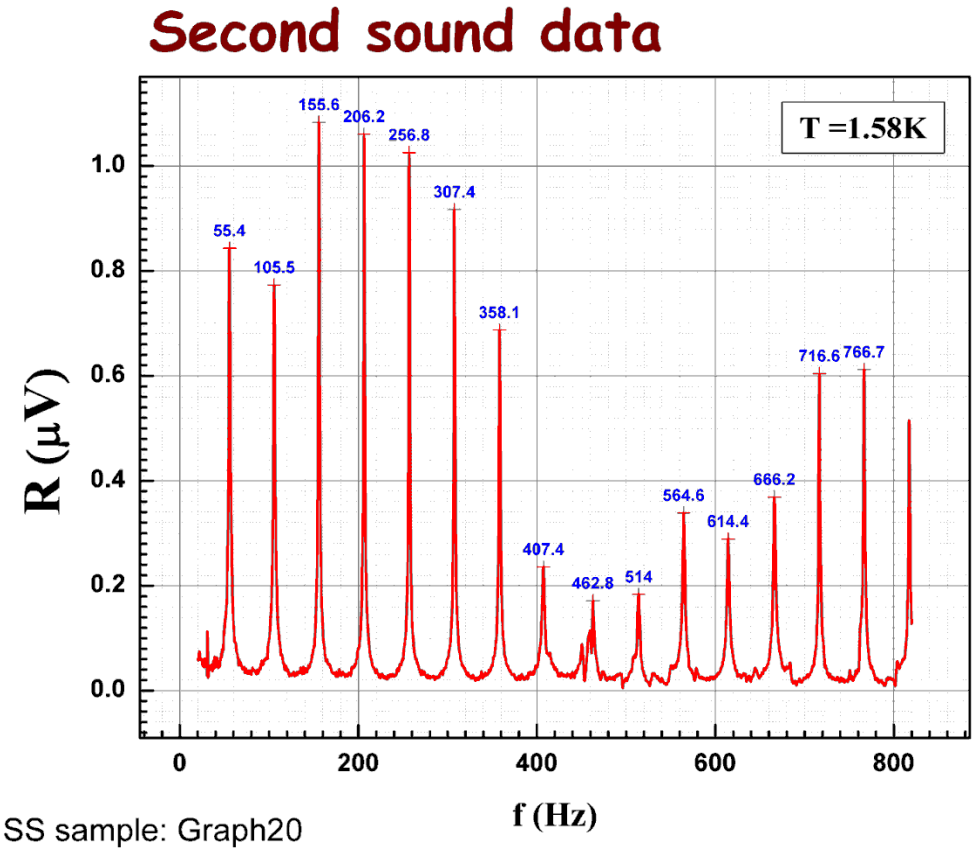
# Graphical presentation of data: Templates



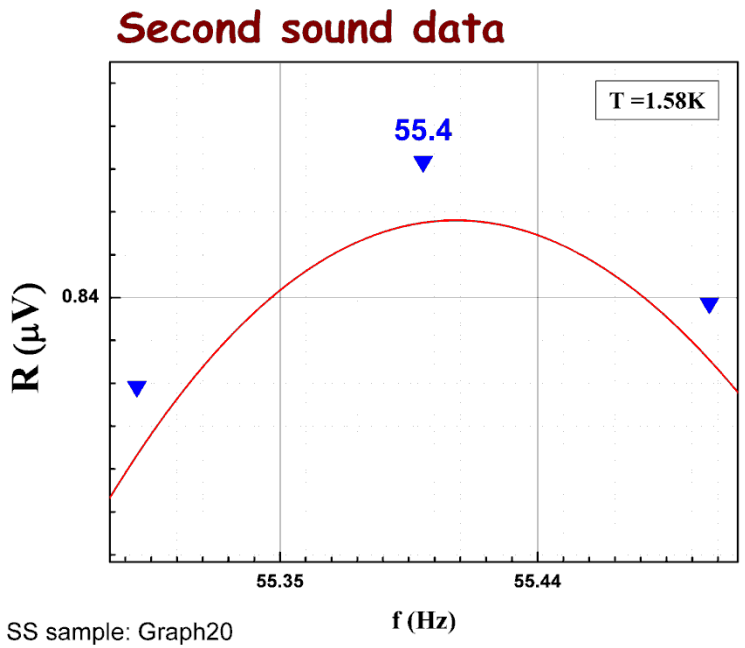

SS sample: Graph20

# Graphical presentation of data: Fitting, etc.



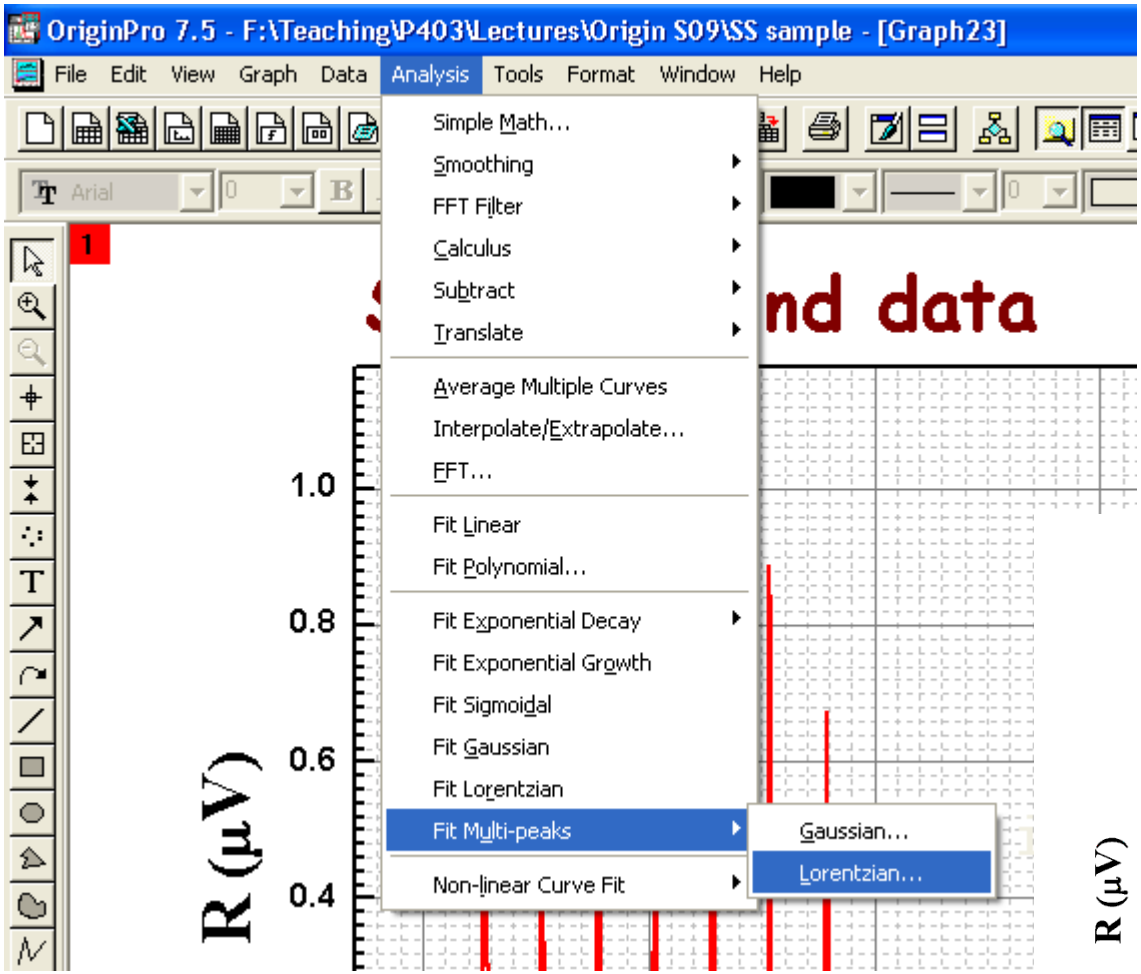



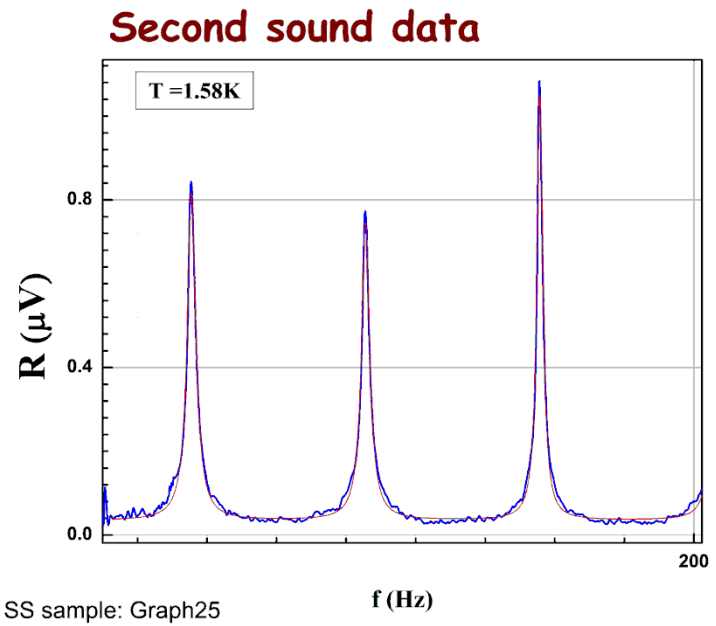

SS sample: Graph20




SS sample: Graph20

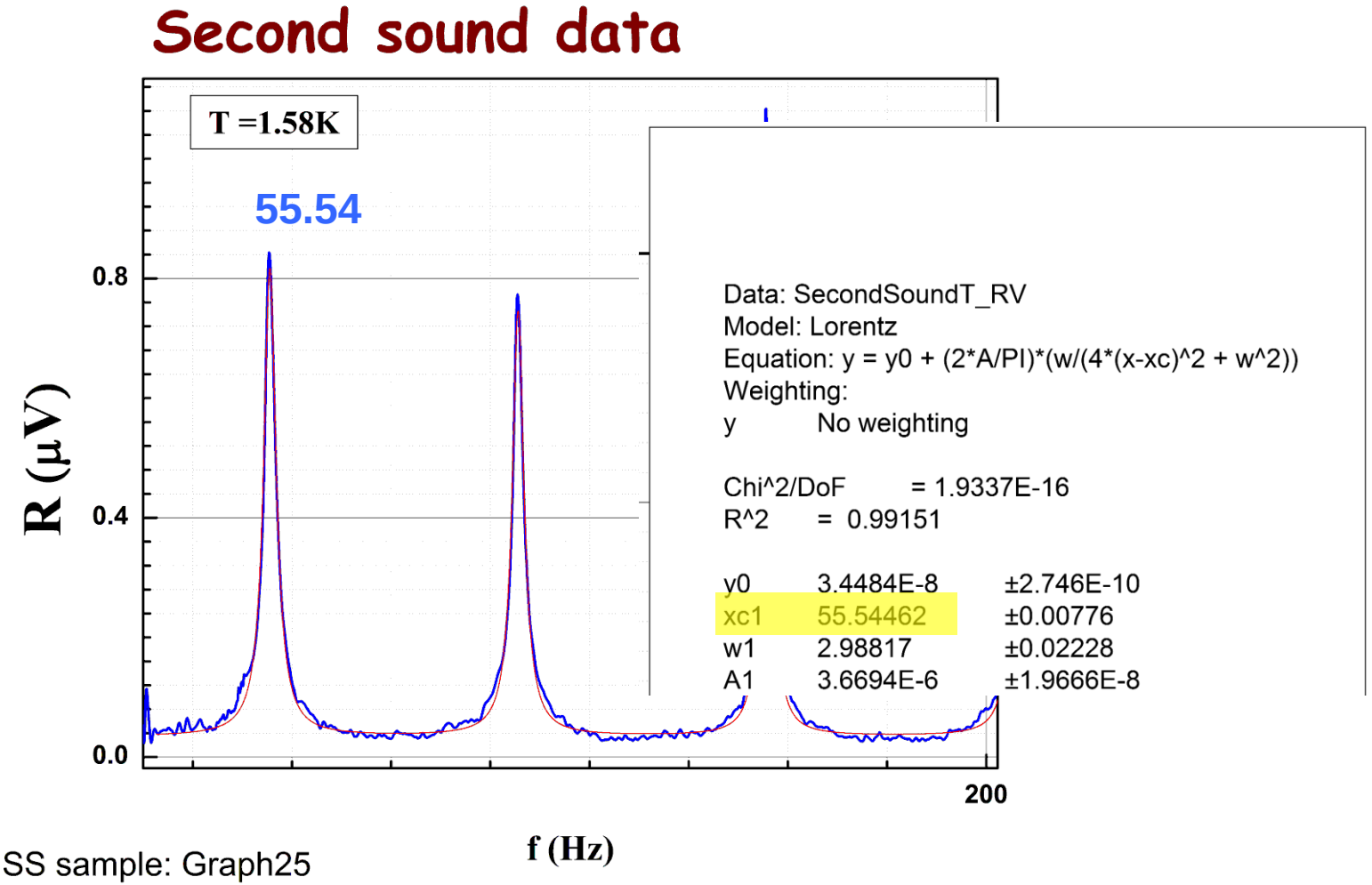
# Graphical presentation of data: Fitting, etc.



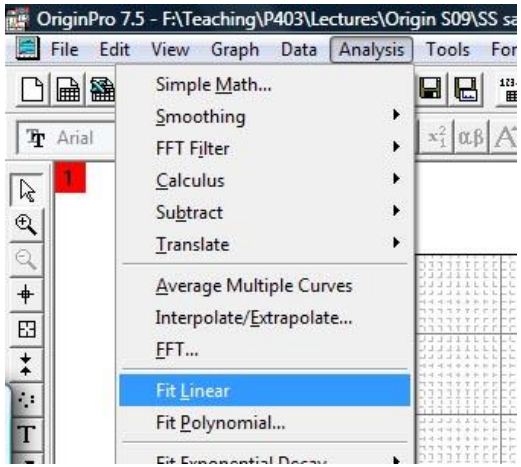

SS sample: Graph25

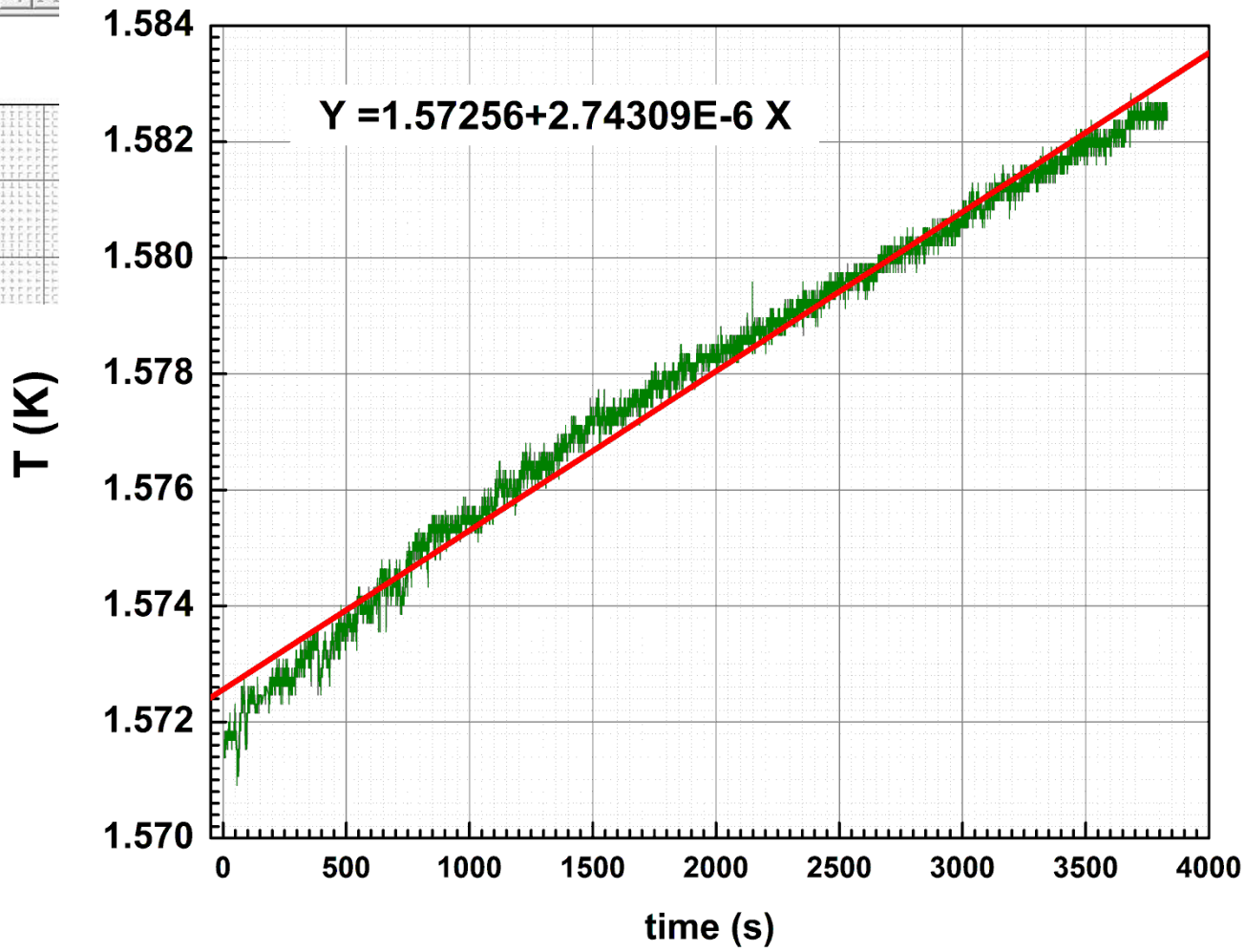
# Graphical presentation of data: Fitting, etc.



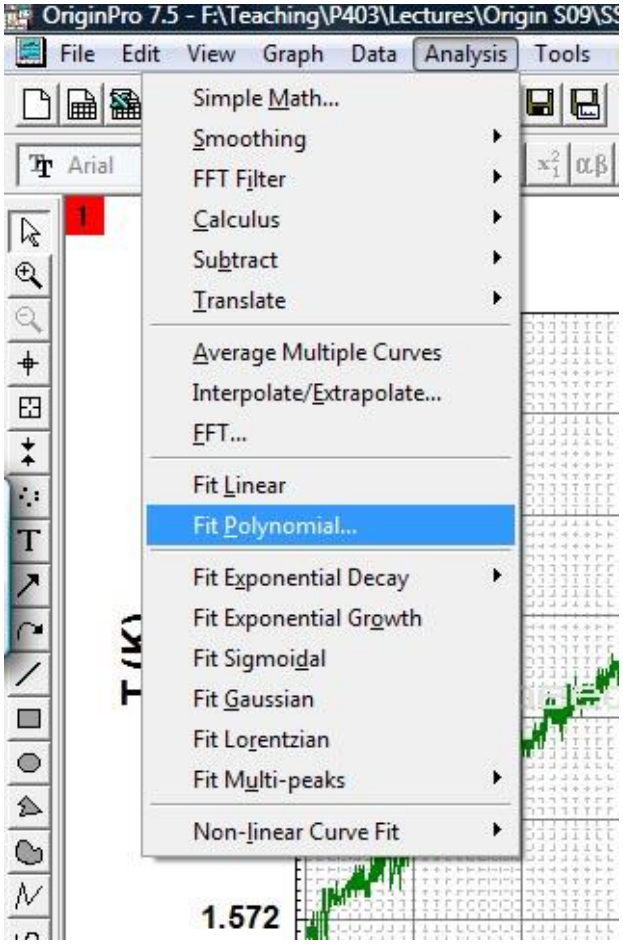

SS sample: Graph25

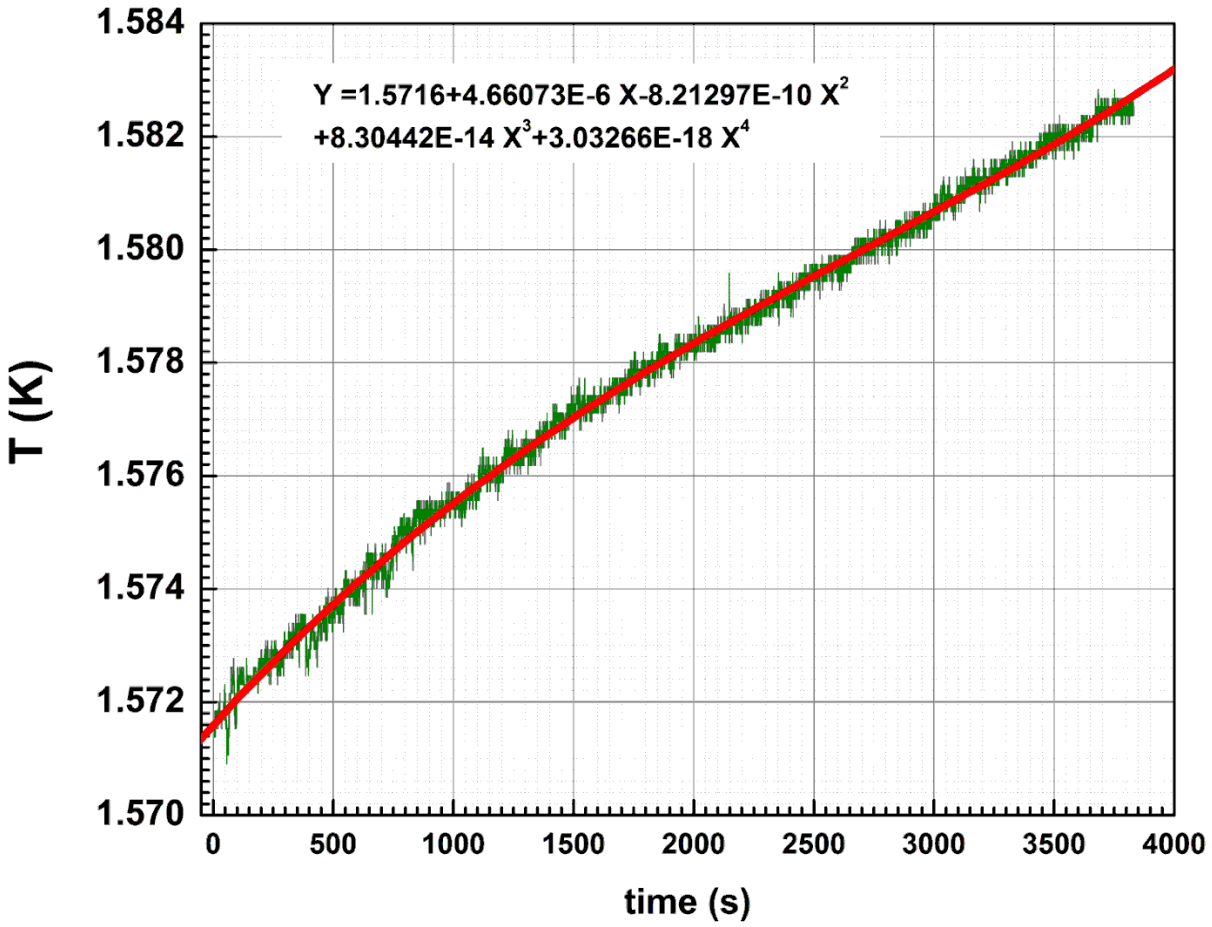
# Graphical presentation of data: Fit Linear



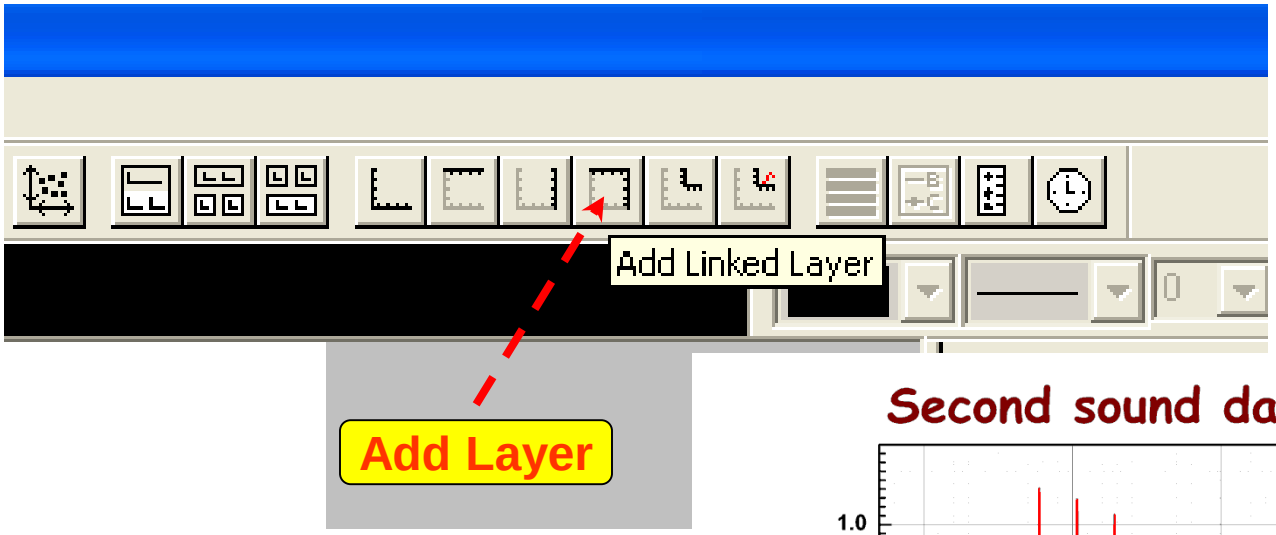



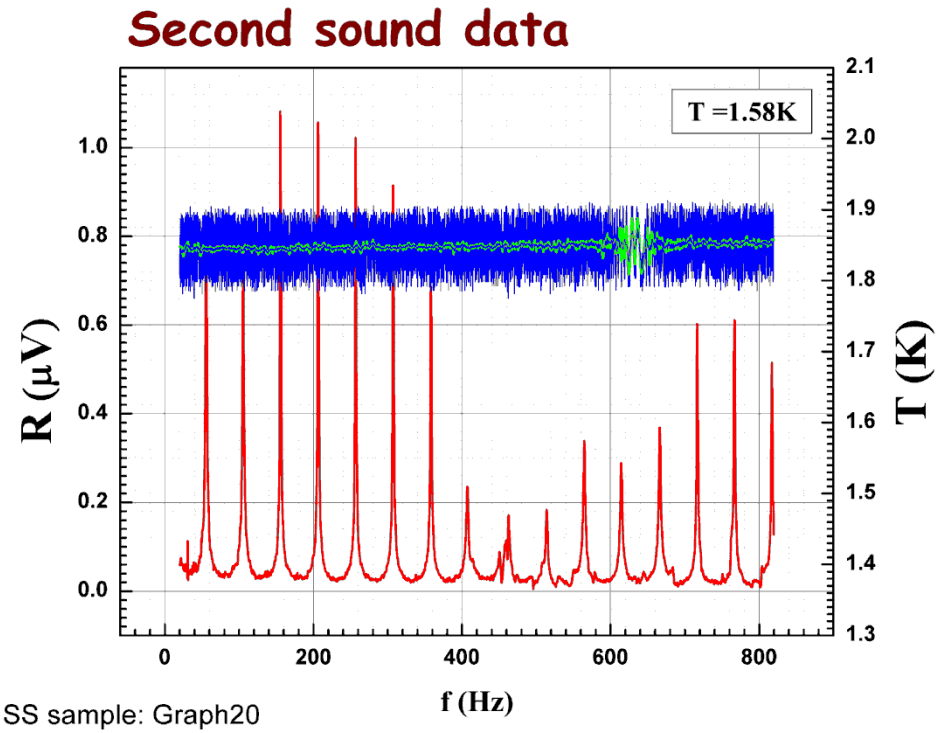
# Graphical presentation of data: Fit Polynomial



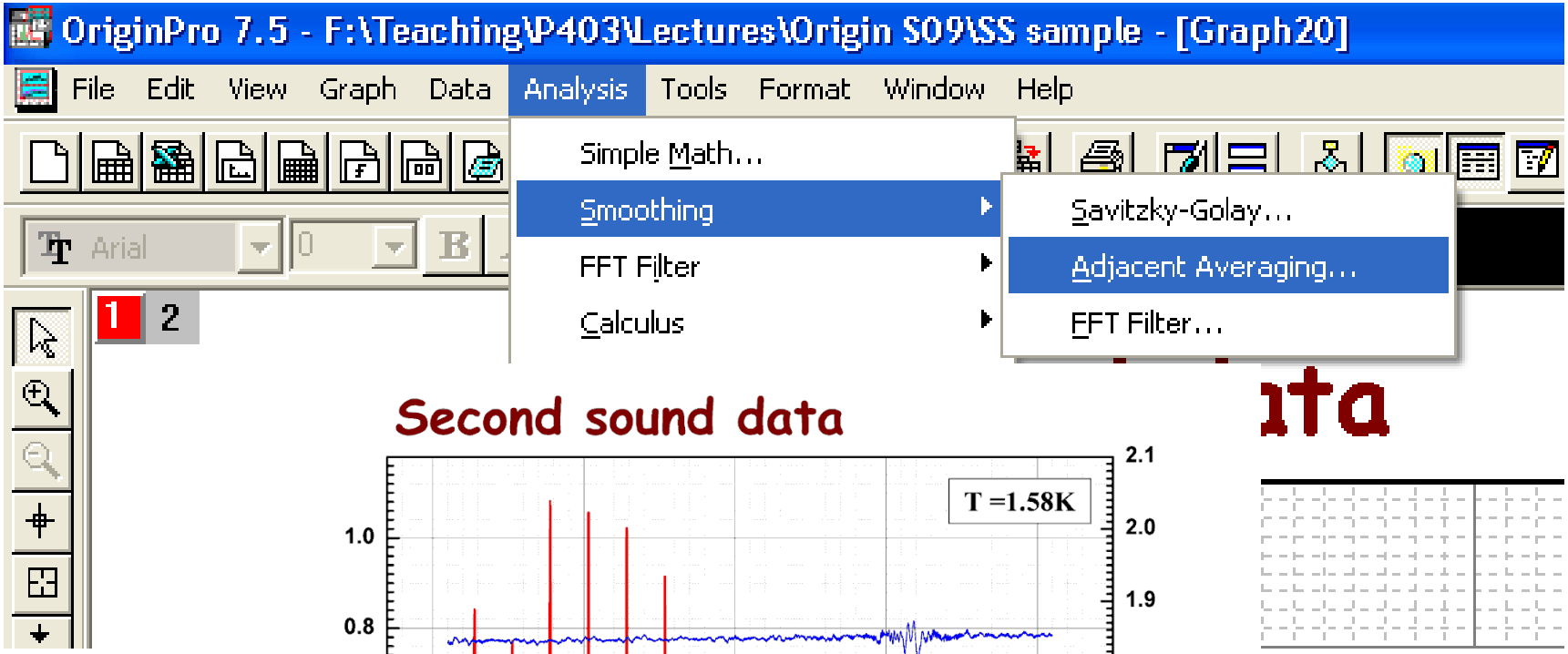
# Graphical presentation of data: 2-layer graph

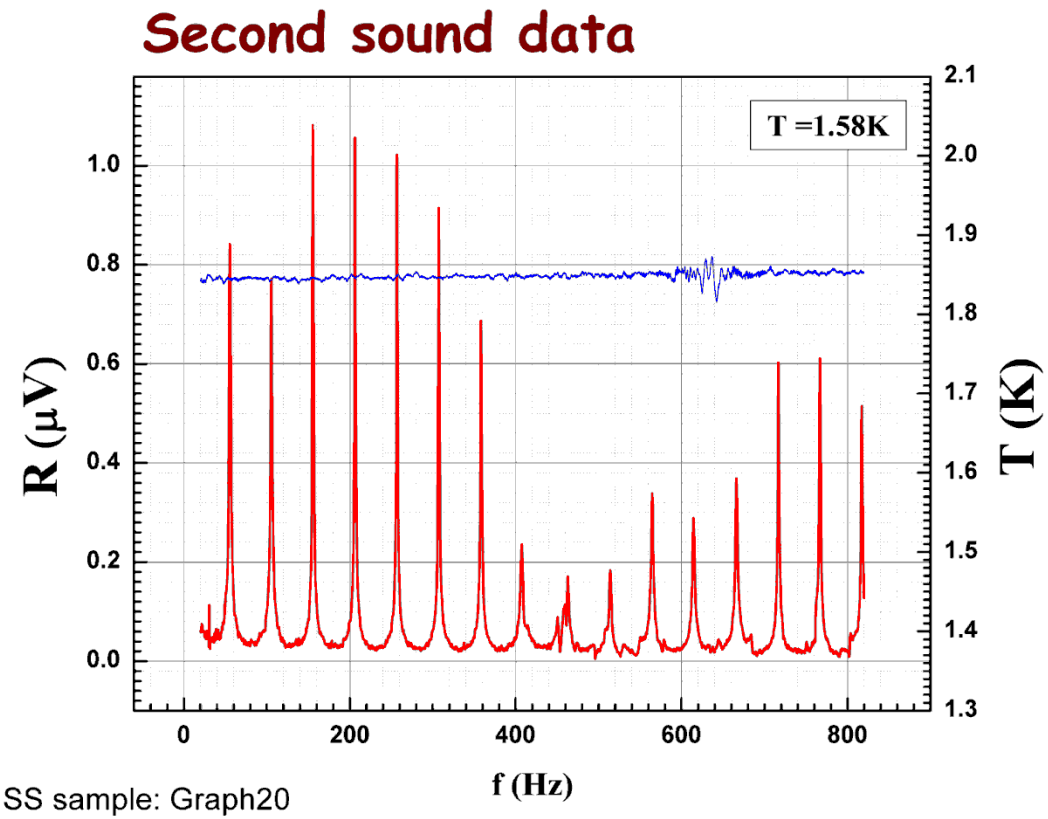



SS sample: Graph20

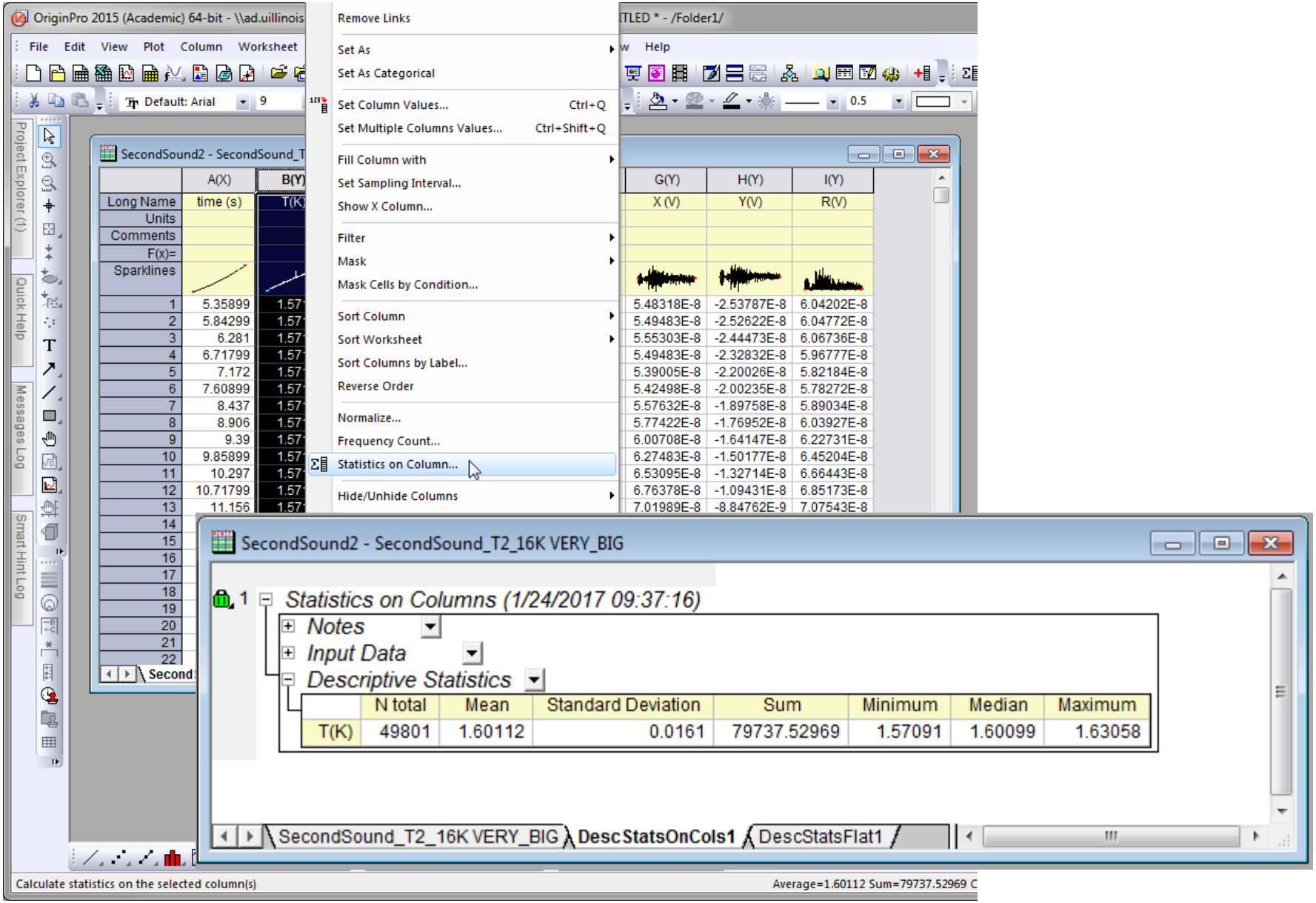
# Graphical presentation of data: Smoothing



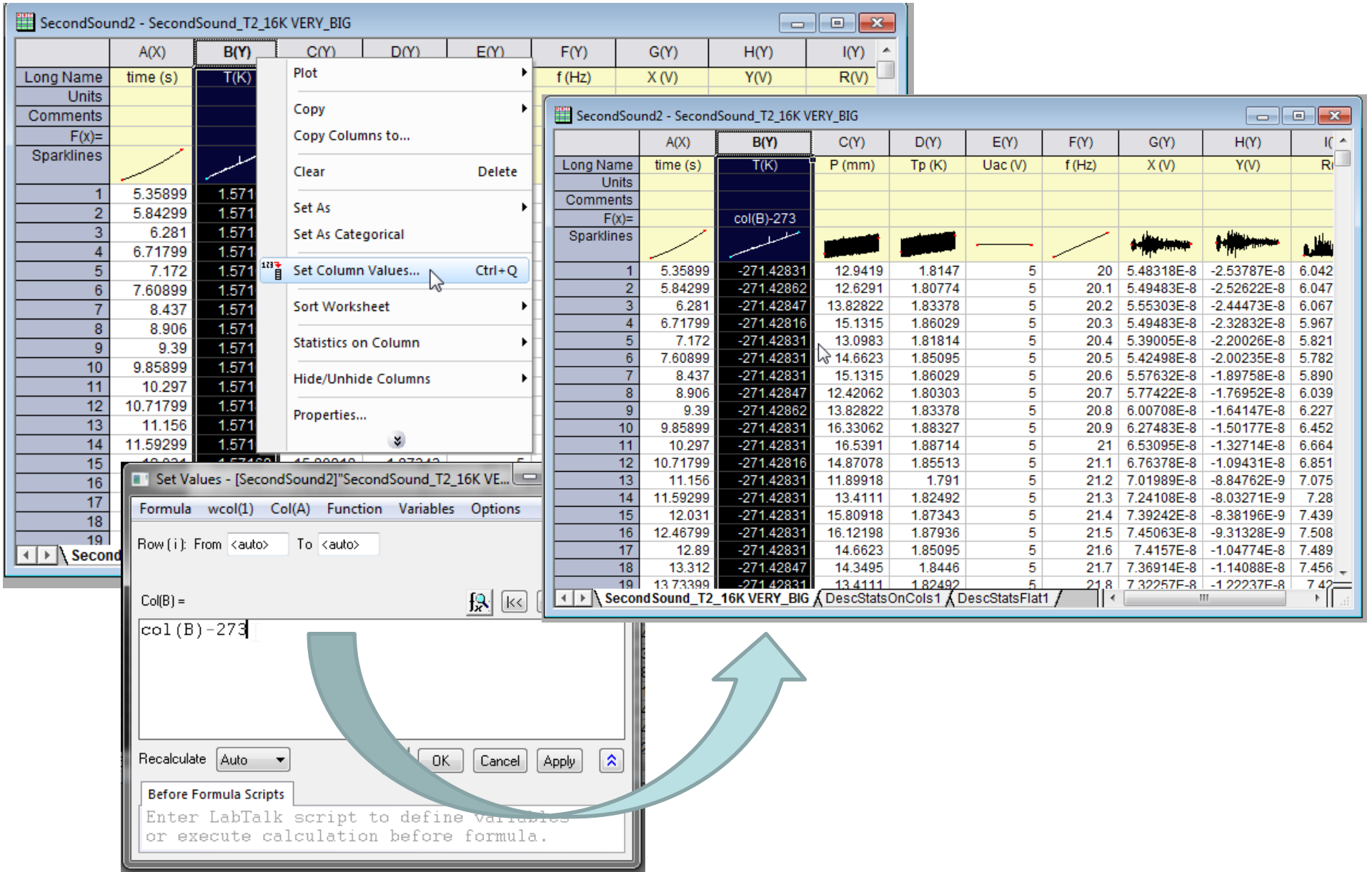




SS sample: Graph20

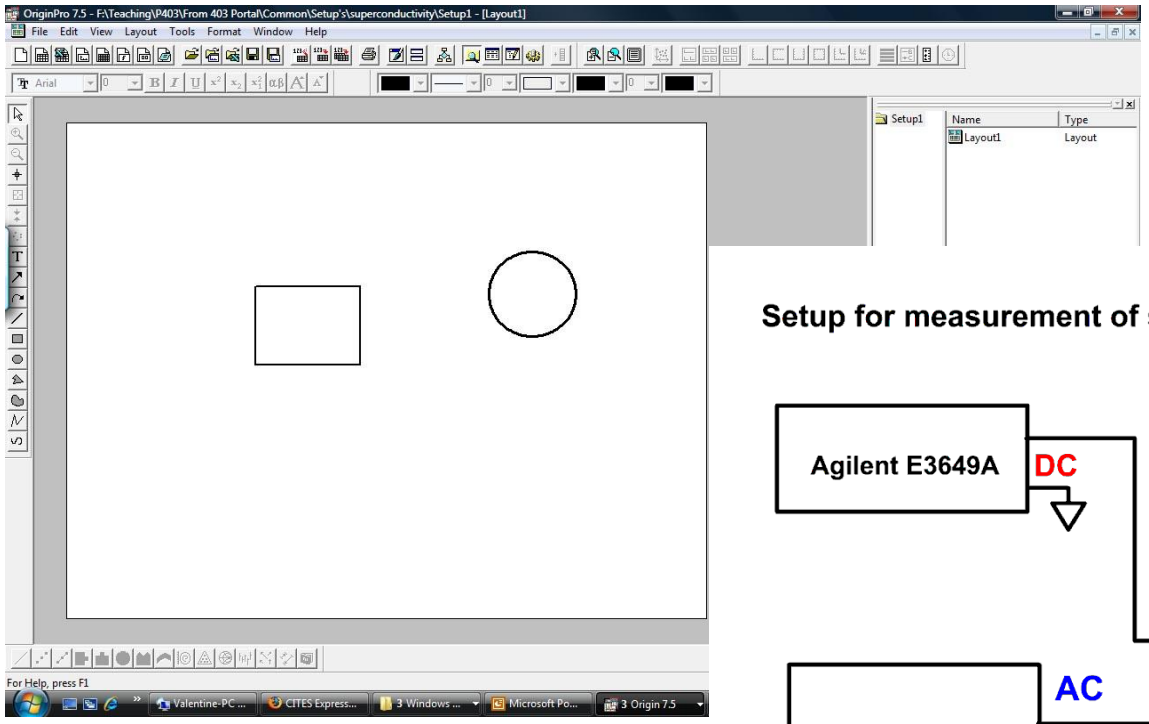
# Working with data: Worksheets



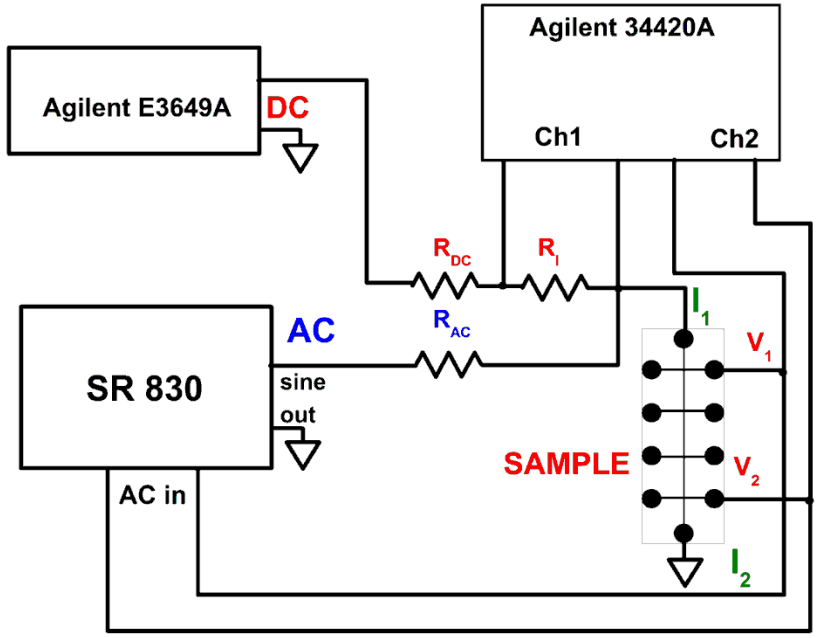
# Working with data: Worksheets



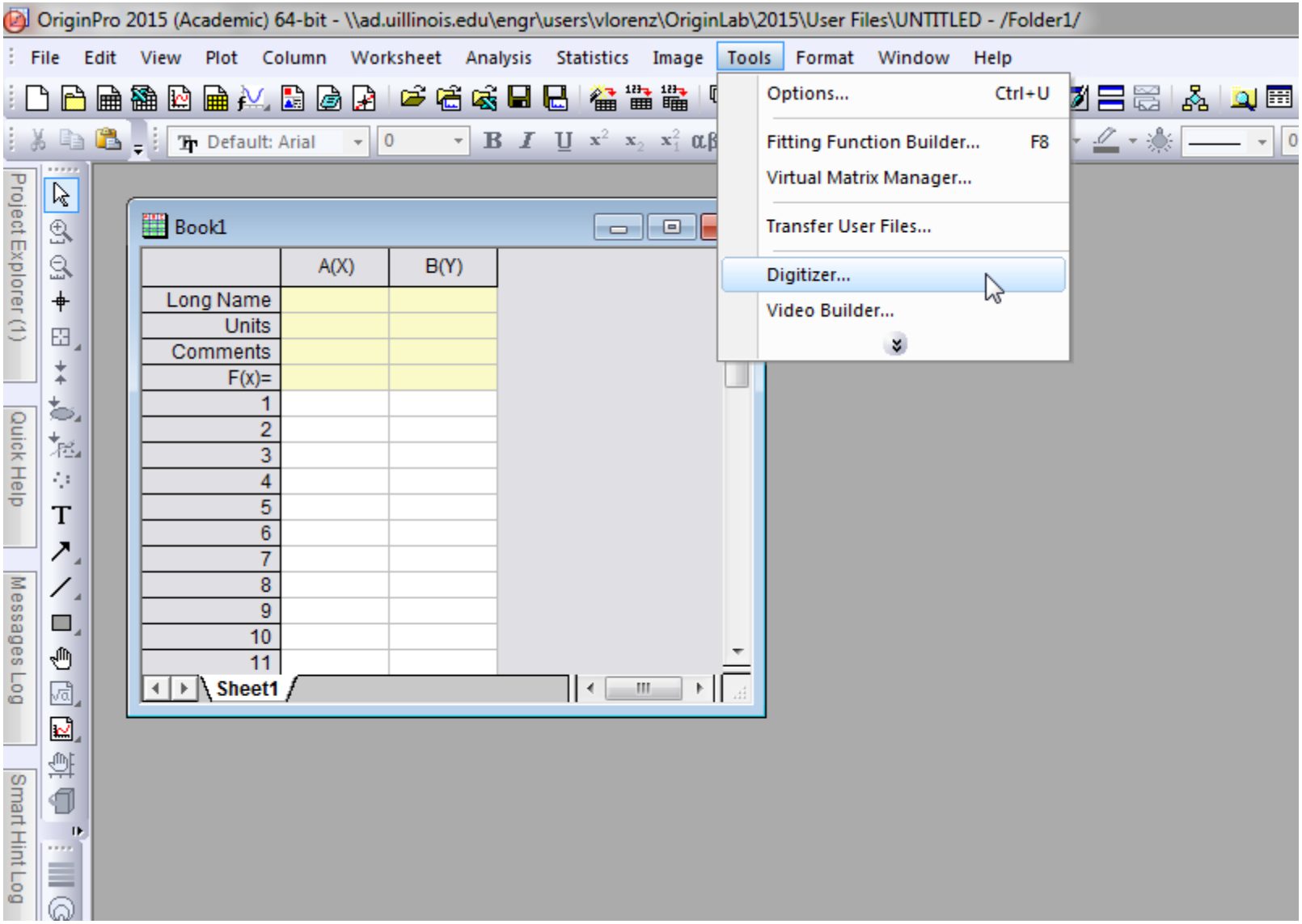
# Layouts



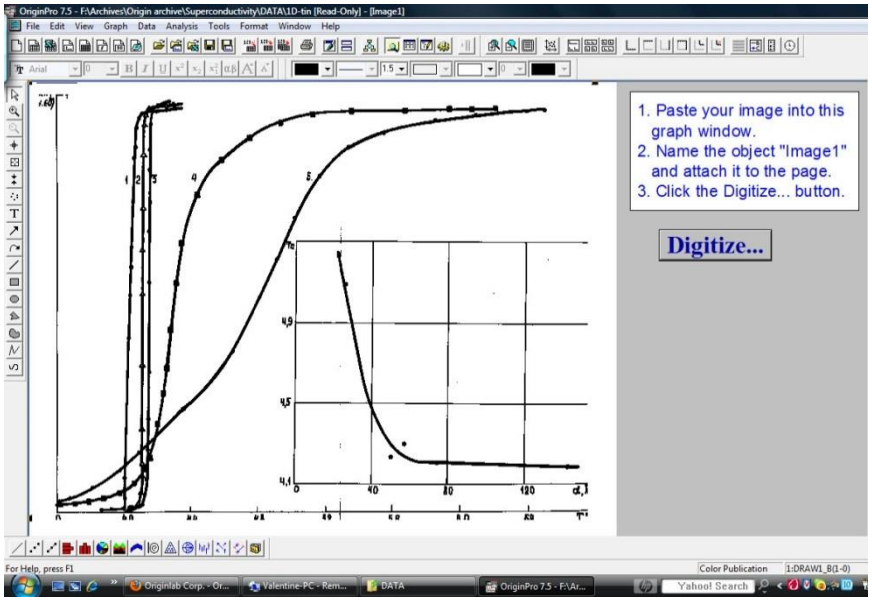

**Setup for measurement of s/c properties**

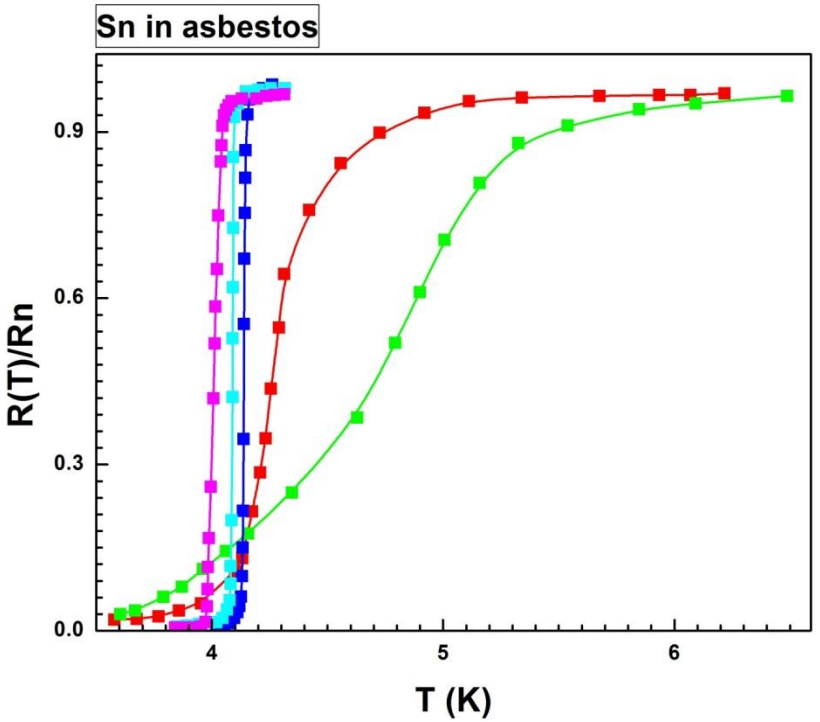


# Custom tools



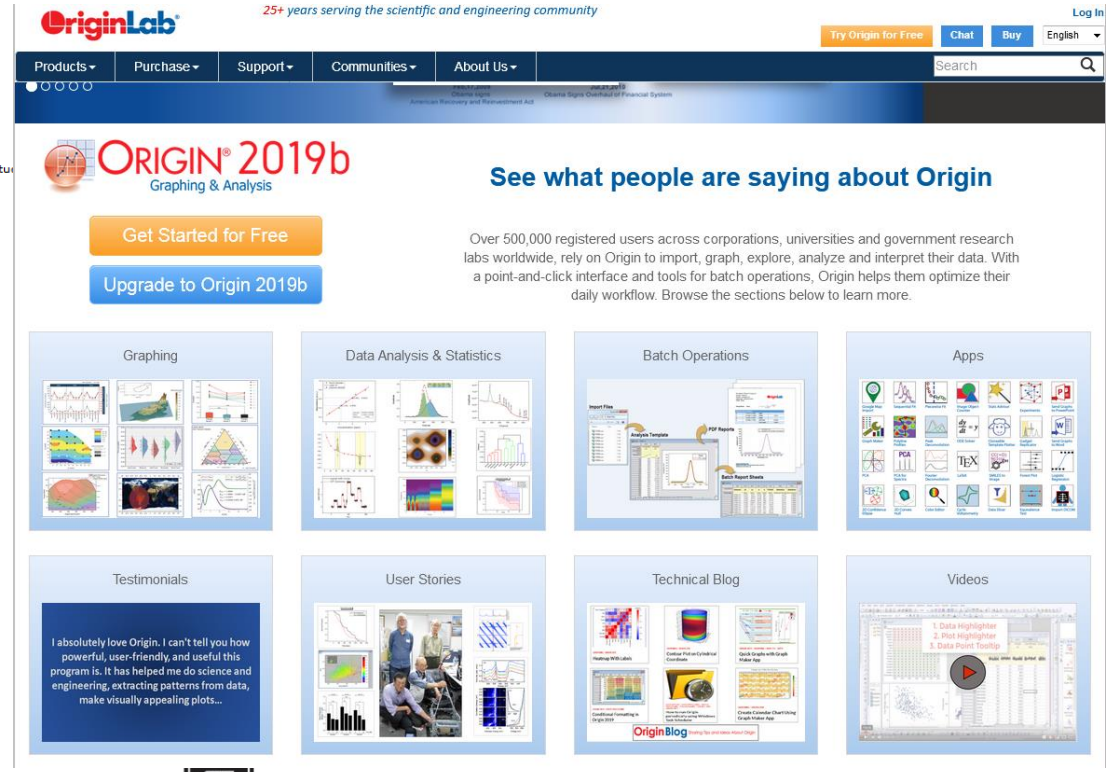
# Using digitizer script



# Origin at UIUC Webstore and OriginLab site.


https://webstore.illinois.edu

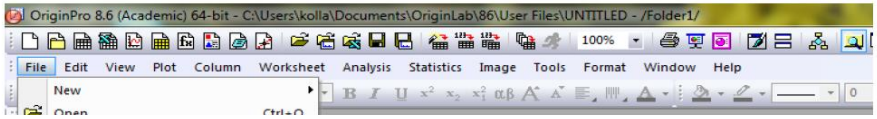



www.originlab.com

# Origin manuals

Working with Origin 8.6.

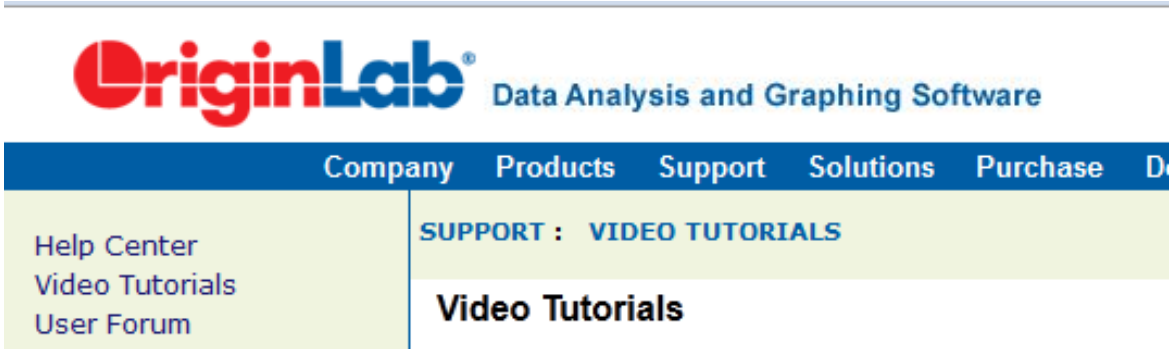
*Step1. Importing data*




**A very short and simple manual covering only the main operations with Origin, and manuals from Origin are on the server (\\Phyaplportal\PHYCS403\Common\Origin manuals).**

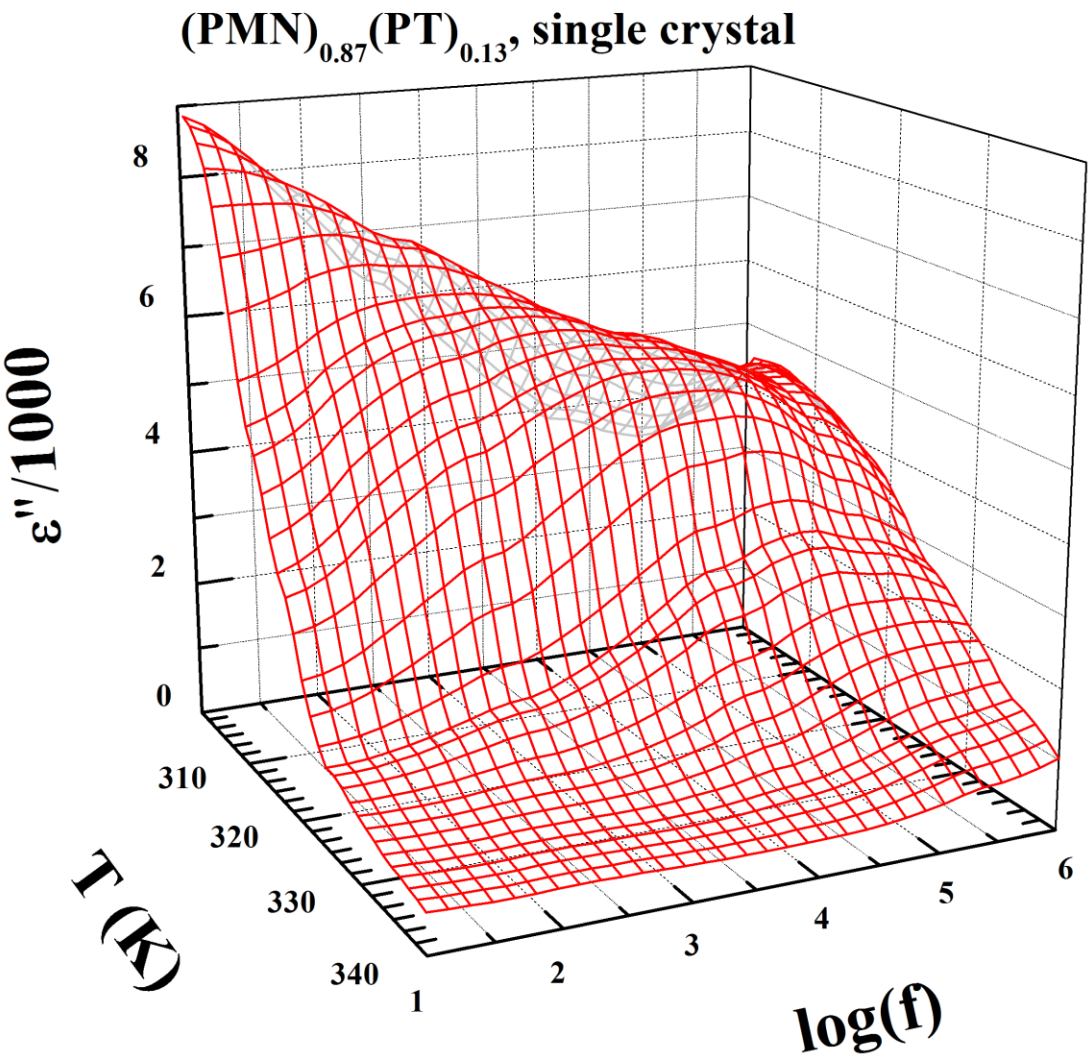
**Do not forget about Origin Help**

**Video Tutorials on the company website**




***http://www.originlab.com/index.aspx?go=SUPPORT/VideoTutorials***

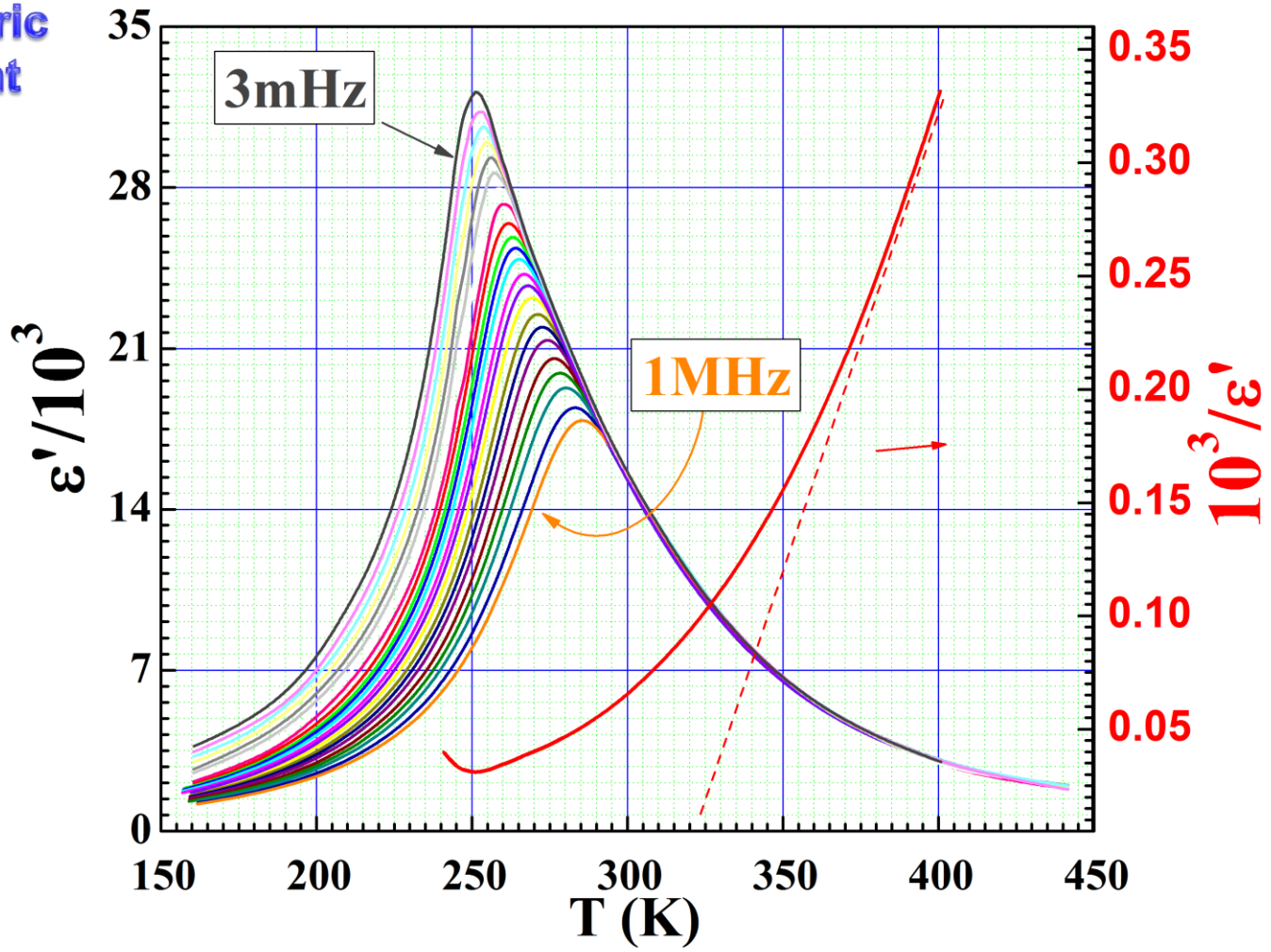
# Example Origin graphs




Ferroelectric Experiment

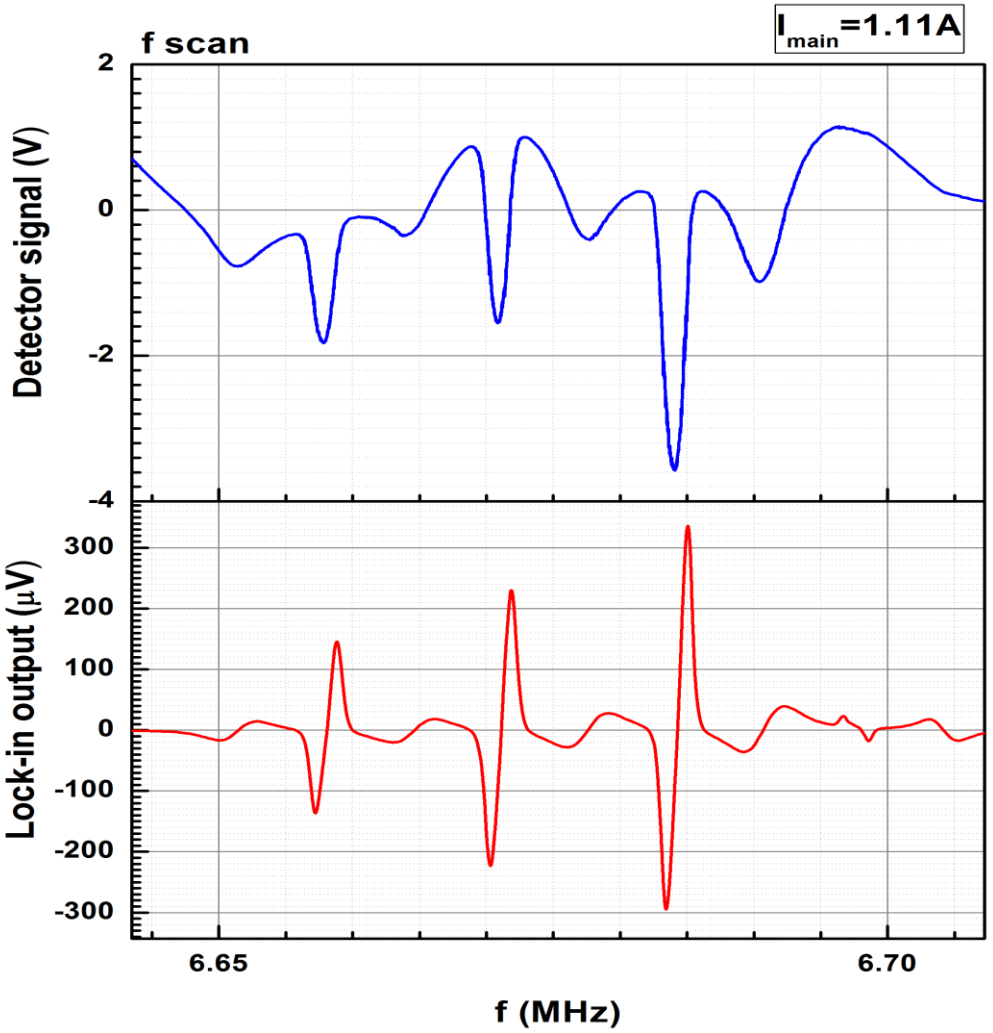
# Example Origin graphs

**Ferroelectric Experiment**



# Example Origin graphs

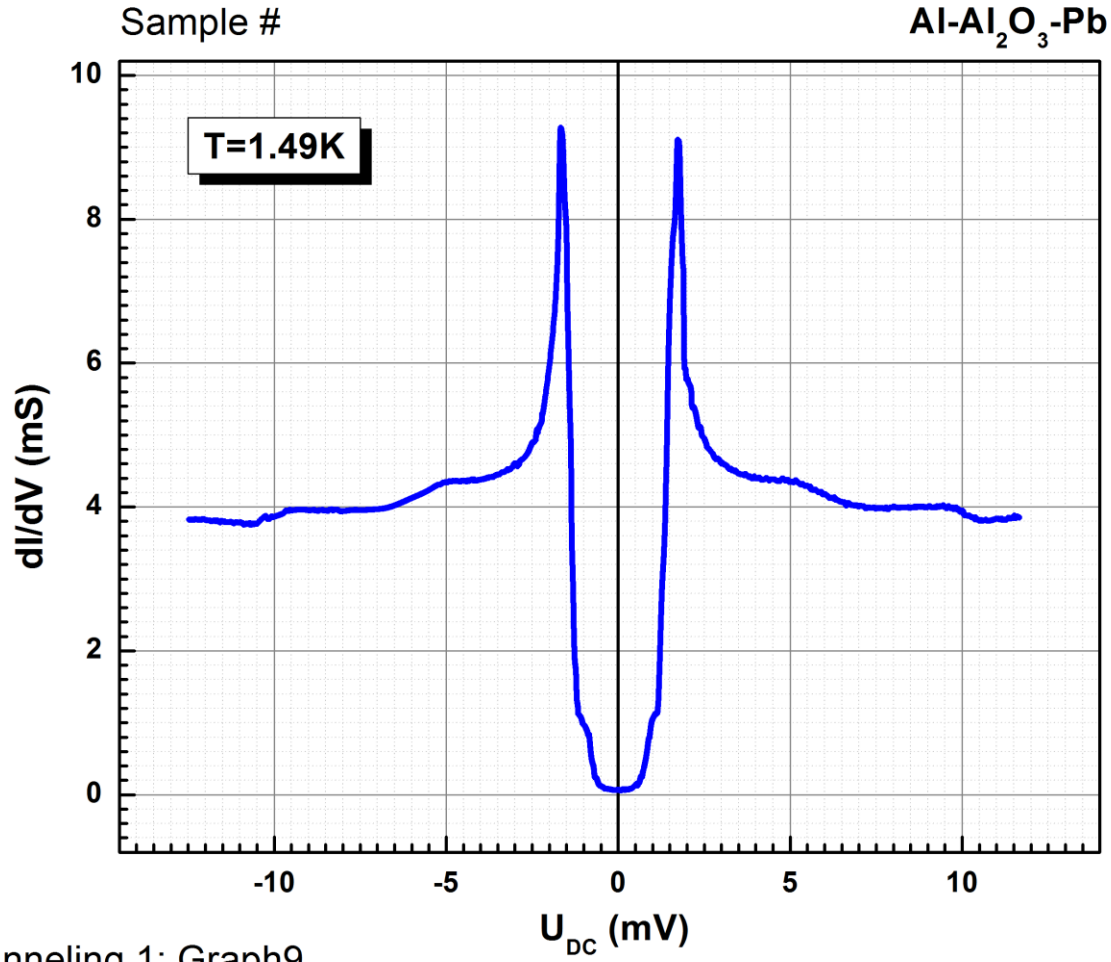
**Optical pumping**




Mapping 0.5-2.5A from March 1st 2012: Graph7

# Example Origin graphs

**Tunneling Experiment**

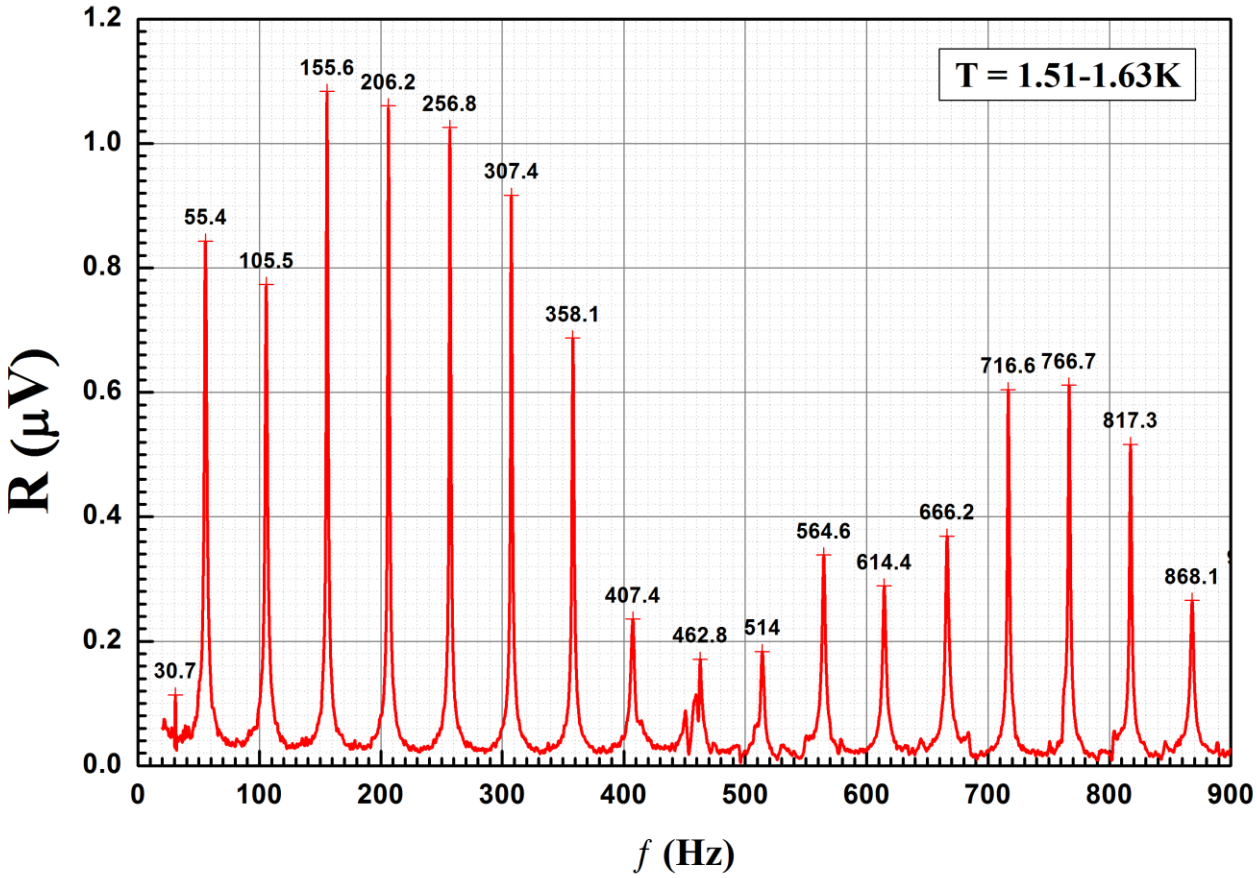



Tunneling 1: Graph9

Sample n2 run8 zoom temp 1.55K

# Example Origin graphs

**Second sound**



# Example Origin graphs

## Magnet mapping