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# Origin 2017

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PRESENTED BY YUKI

# Outlook

## Publishing and Export

在这一节中，我们将学习如何导出不同格式的图形，如何利用图形制作动画以及如何实现和其他软件的交互



## Exercise

在这一节中，我们将通过问答练习题来回顾本次分享的主要内容。



## Graphing(Advanced)

在这一节中，我们将学习更多关于绘图以及美化图形的技巧。



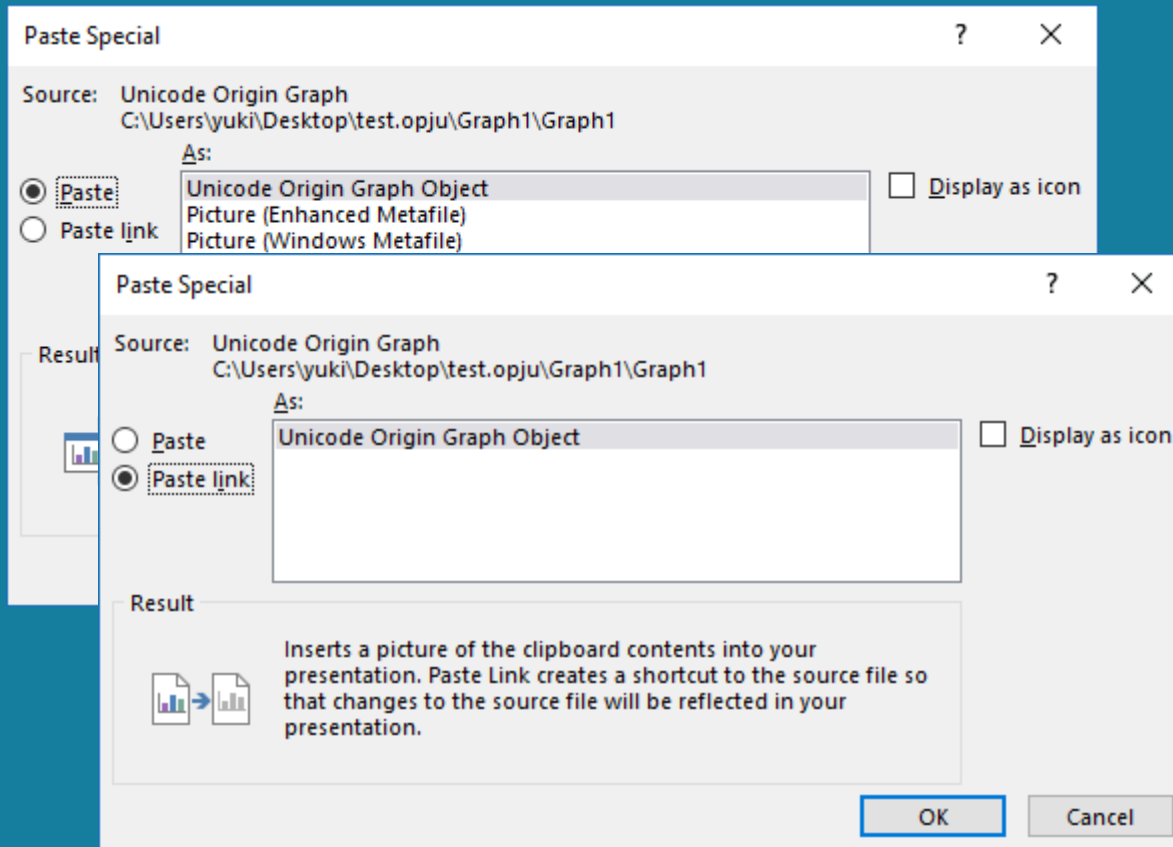
## Curve Fitting

在这一节中，我们将学习如何进行线性，非线性拟合以及自定义函数的拟合。

# Publishing and Export

# Pasting Graphs to Other Applications

## 粘贴图形到其他应用文件



## 1. Origin

激活图形窗口，右键选择Copy Page

## 2. Power Point or Word

点击Paste按钮，选择 Paste Special

- Paste as a linked graph
- Paste as an embedded graph
- Paste as a picture

\*Tip: If you notice distortions in the image, Menu: Tool: Option: Copy Page Setting: Advanced: Set Resolution

# Sending Graph to PowerPoint or Word

发送图形到PowerPoint或者Word



## Send Graphs to Word App

File Exchange Page:

<http://www.originlab.com/FileExchange/details.aspx?fid=238>



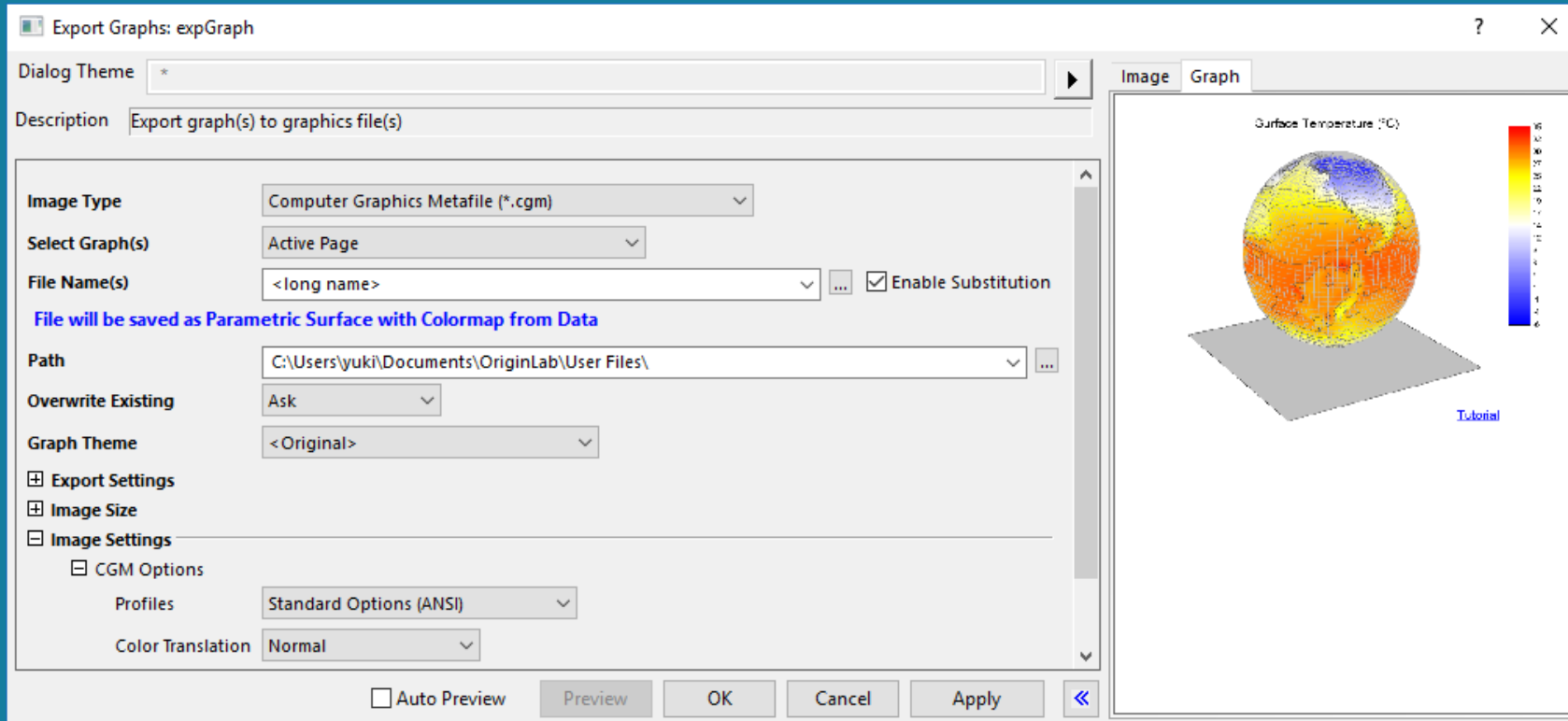
## Send Graphs to PowerPoint App

File Exchange Page:

<http://www.originlab.com/FileExchange/details.aspx?fid=374>

# Exporting Graphs

## 导出图形



## 1. File: Export Graph

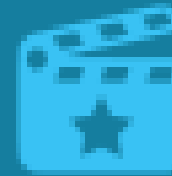
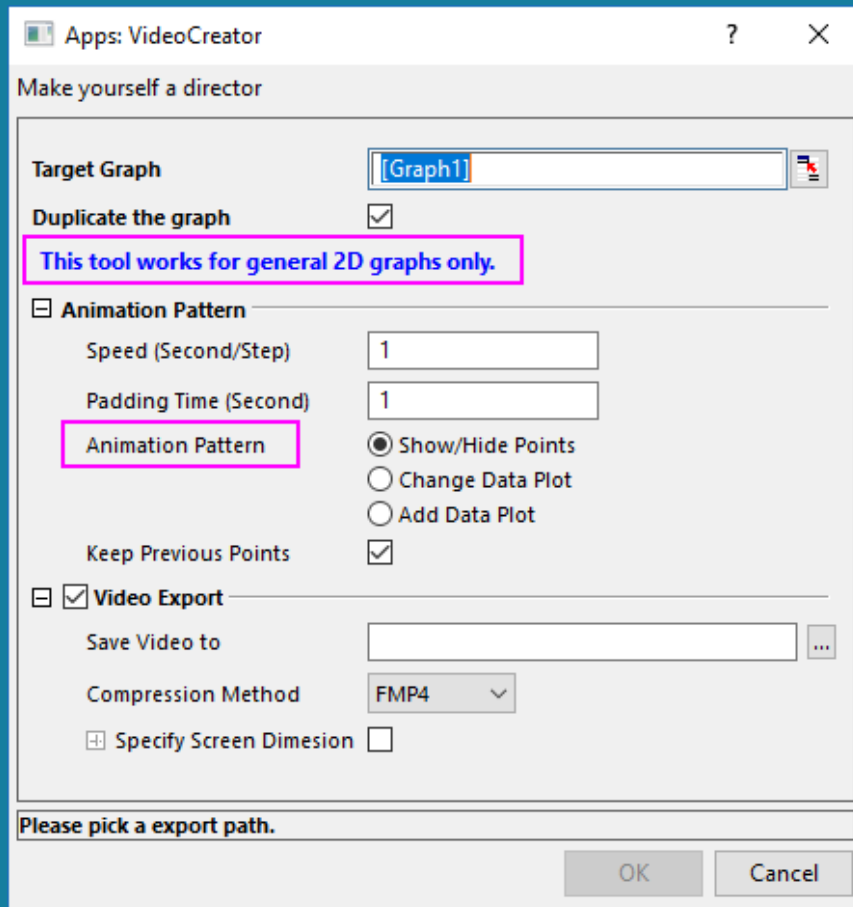
菜单栏选择File: Export Graph打开对话框选择导出各种格式的图片

## 2. Save as Theme

Export Graph对话框选项多，适合将常用的设置保存成Theme。于下一次使用时可直接点击右上方的三角按钮重复使用Theme。

# Creating Movies

## 制作动画



## Movie Creator App

File Exchange Page:

<http://www.originlab.com/FileExchange/details.aspx?fid=238>

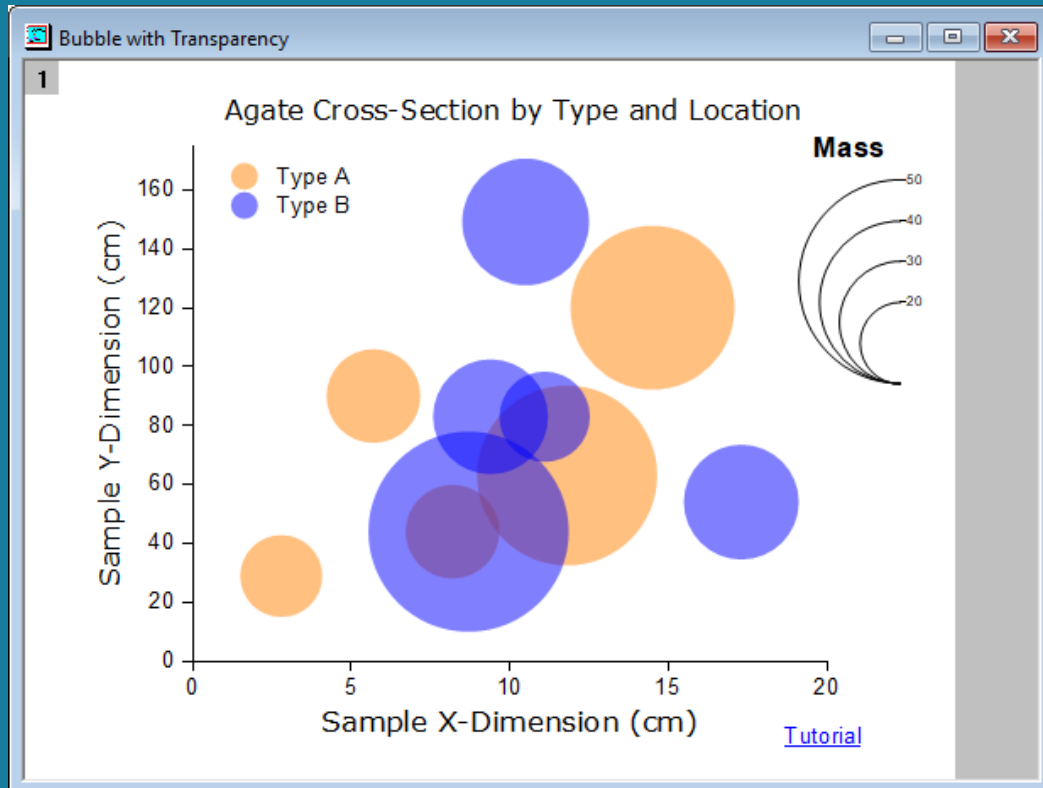
Note : 目前只适用于2D图形。

# Graphing (Advanced)



# Multidimensional Graph

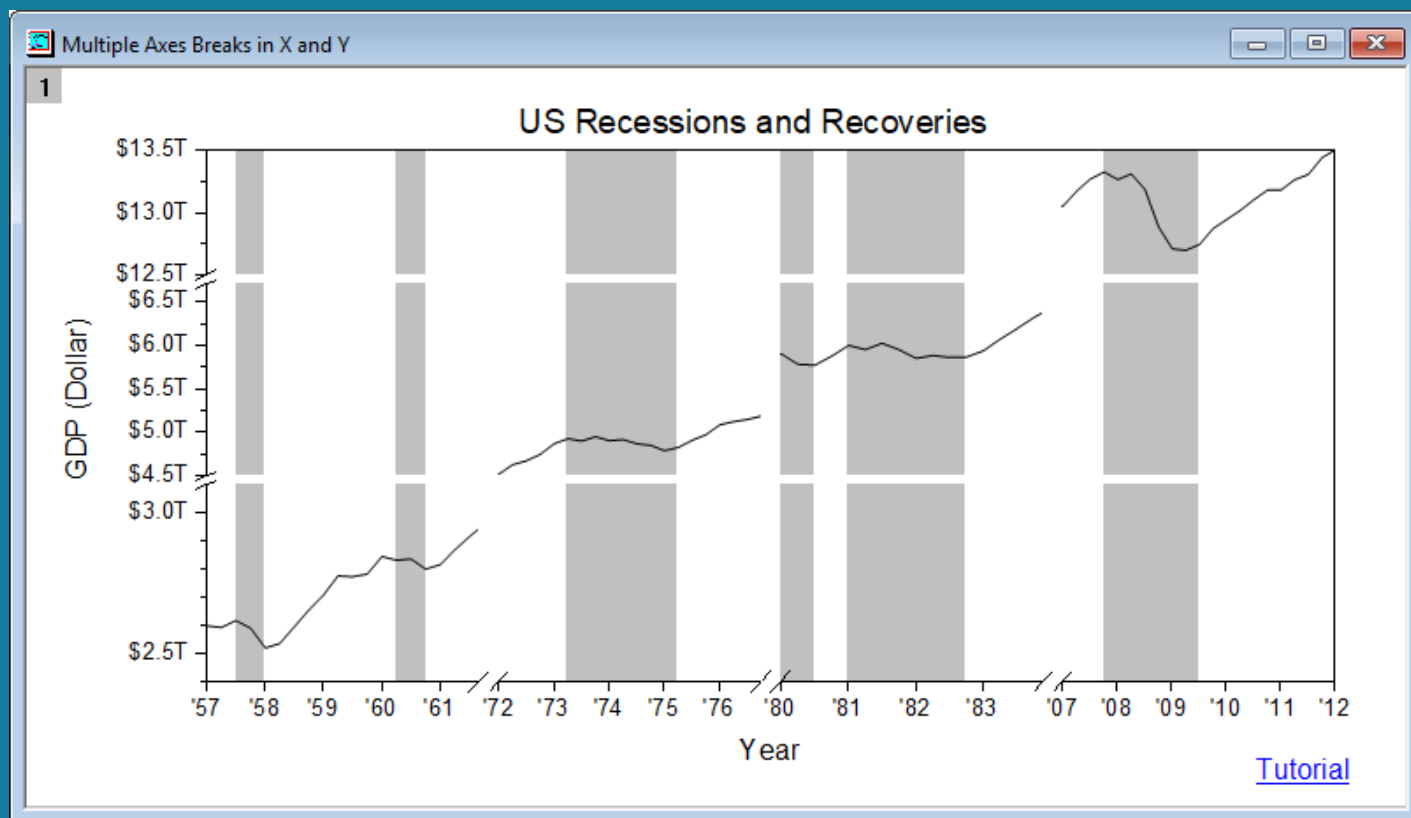
## 多维图形



1. The X data
2. The Y data
3. The Z data
4. Size - Select one of the col(Column\_Name) options
5. Edge Color - Select one of the col(Column\_Name) options
6. Fill Color - Select one of the col(Column\_Name) options
7. Shape - Select one of the col(Column\_Name) options
8. Interior - Select one of the col(Column\_Name) options

# Customizing Graph Axes

## 自定义图形坐标



### 1. Special Ticks

添加特殊的坐标刻度线

### 2. Reference Lines

添加参照线

### 3. Break

添加断点

# Multiple Layers Graphs

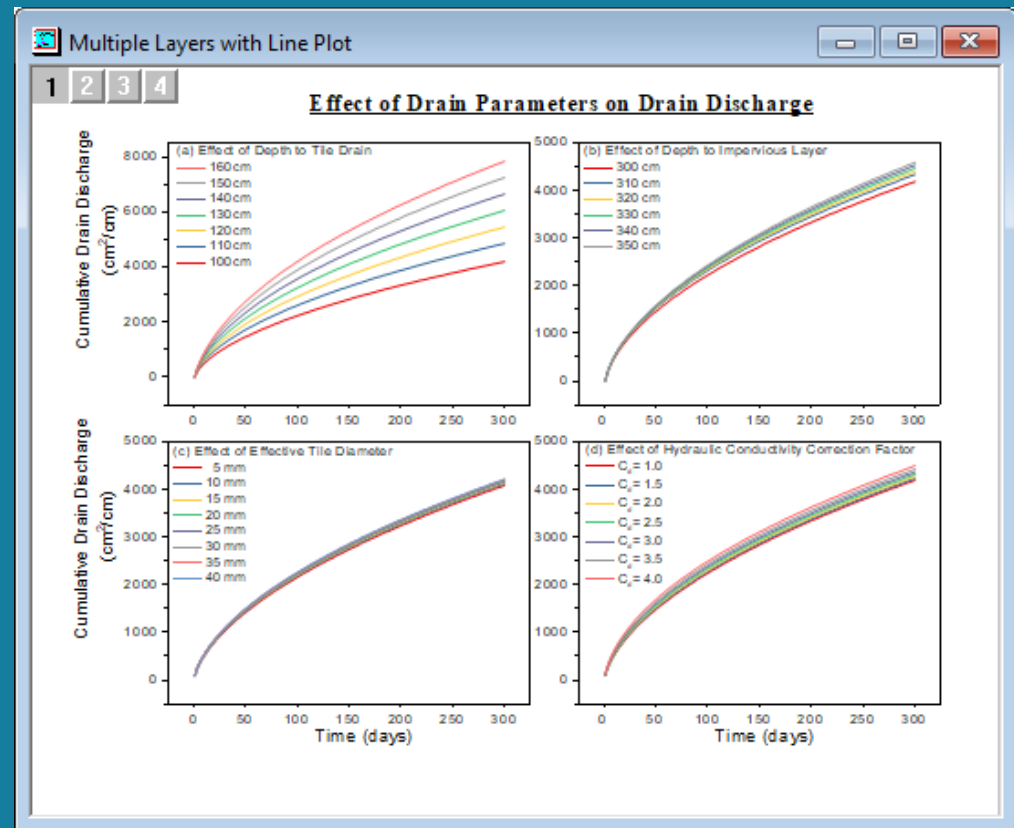
## 多图层图形

### 1. Merge Graph Windows

菜单栏选择Graph: Merge Graph Windows, 然后在 Graphs box里添加需要合并的图形, 并在 Arrange Settings里设置合并的样式。

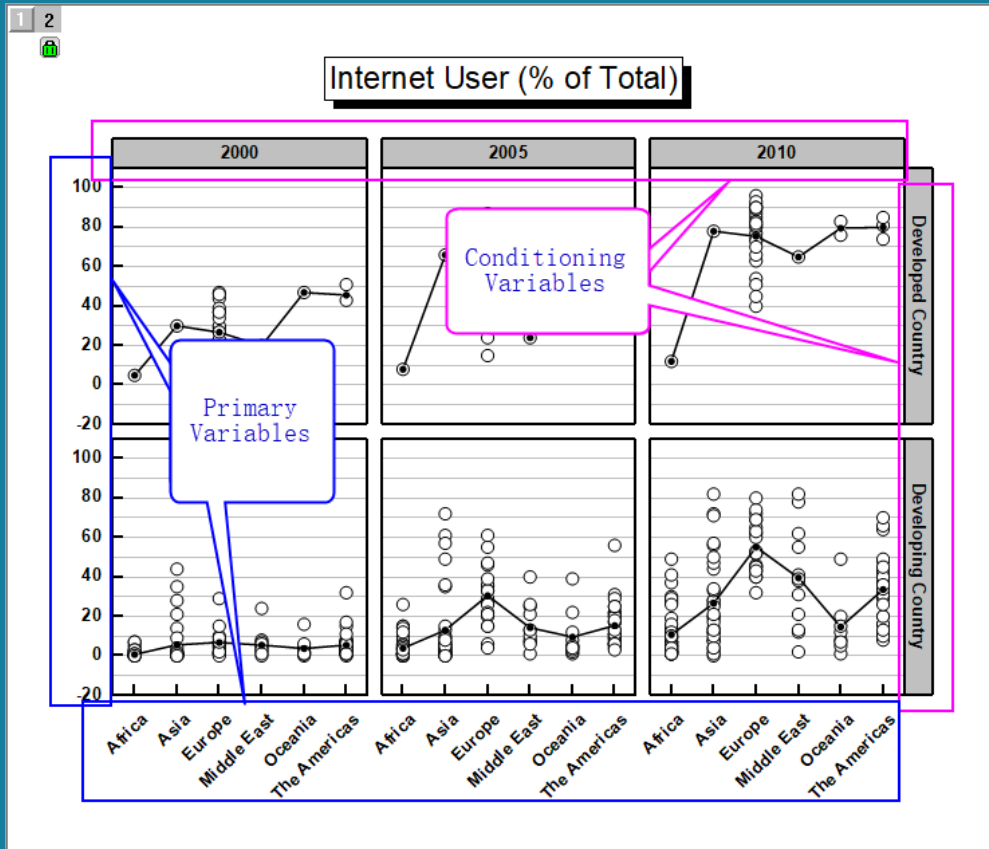
### 2. Layer Management

在图层图标(图形左上角含数字的灰色方框)上点击右键选择Layer Management



# Trellis Plot

## 栅格图



## 1. Wrap Panels

双击打开Plot Details对话框，选择Panel Tab，可以勾选Wrap Panels if Columns/Rows Exceed

## 2. Overlap Panels


双击打开Plot Details对话框，选择Panel Tab，可以勾选Overlap Panels

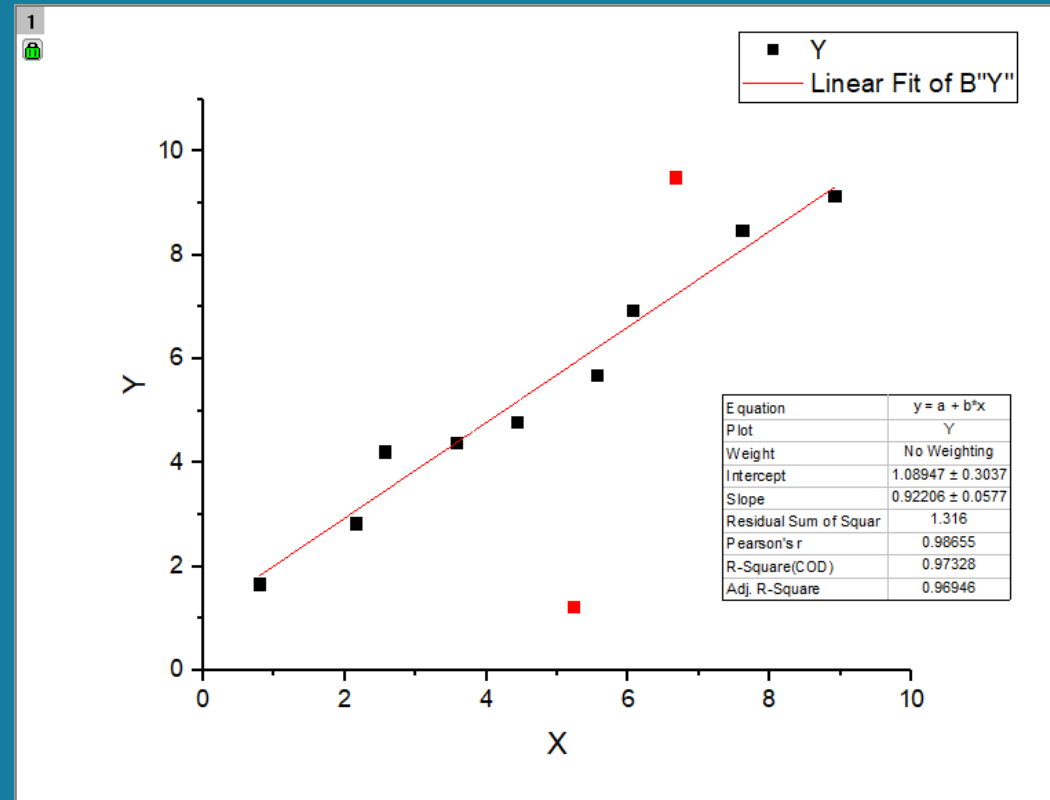
# Curve Fitting

# Data Masking

## 数据屏蔽

### Mask Points

1. 点击左侧工具栏中的Mask Data Points on Active Plot  按钮，点击选择需要屏蔽的数据点
2. 选择需要屏蔽的数据点，右键选择Mask



# Batch Processing

## 批量操作

The diagram illustrates the batch processing workflow in OriginLab software. It begins with a file explorer window displaying a folder containing eight CSV files: T275K.csv, T285K.csv, T295K.csv, T305K.csv, T315K.csv, T325K.csv, T335K.csv, and T345K.csv. A pink arrow points from this folder to a software window titled 'T275K - T275K.csv'. This window shows a 'Nonlinear Curve Fit (Gauss)' analysis performed on 10/13/2015. The interface includes a sidebar with sections for Notes, Input Data, Parameters, Statistics, Summary, ANOVA, and Fitted Curves Plot. The main area displays a plot of Amplitude versus Wavelength (nm) with a fitted curve, and below it, Residual Plots for Amplitude. A second pink arrow points from this software window to an 'Analysis Report Export' window. This window displays a detailed report for the analysis, including the fitting model equation  $y = Y_0 + \frac{A}{w\sqrt{1/2} + \frac{x - X_0}{w}}$ , a table of fitting parameters and statistics, and a plot of Amplitude (mV) versus Wavelength (nm) showing the fitted curve and data points.

Fitting Parameters and Statistics			
N	-0.09254 ± 0.26687	sigma	26.08323
X <sub>0</sub>	1043.3428 ± 0.03079	FWHM	61.42132
w	52.36647 ± 0.06527	Height	908.6266
A	59406.8903 ± 71.12575	Red Chi-Sqr	25.58660
		Adj. R-Square	0.99957

## 1. Create Analysis Template

1. 菜单栏选择 File: Save Workbook as Analysis Template

## 2. Batch Processing

1. 菜单栏选择 File: Batch Processing 或者在工具栏点击 Batch Processing button

# Global Fit with Parameter Sharing

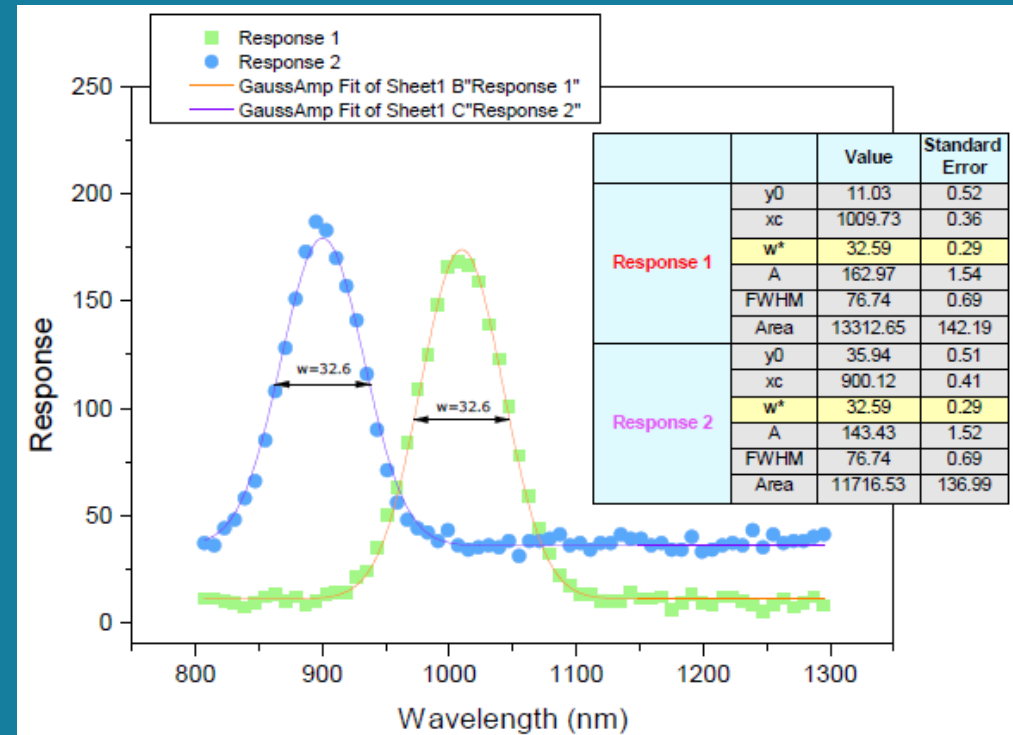
## 共享参数的全局拟合

### 1. Key Points

1. 用同一个拟合模型连续对多组数据进行拟合
2. 可选择是否共享拟合参数

### 2. Settings

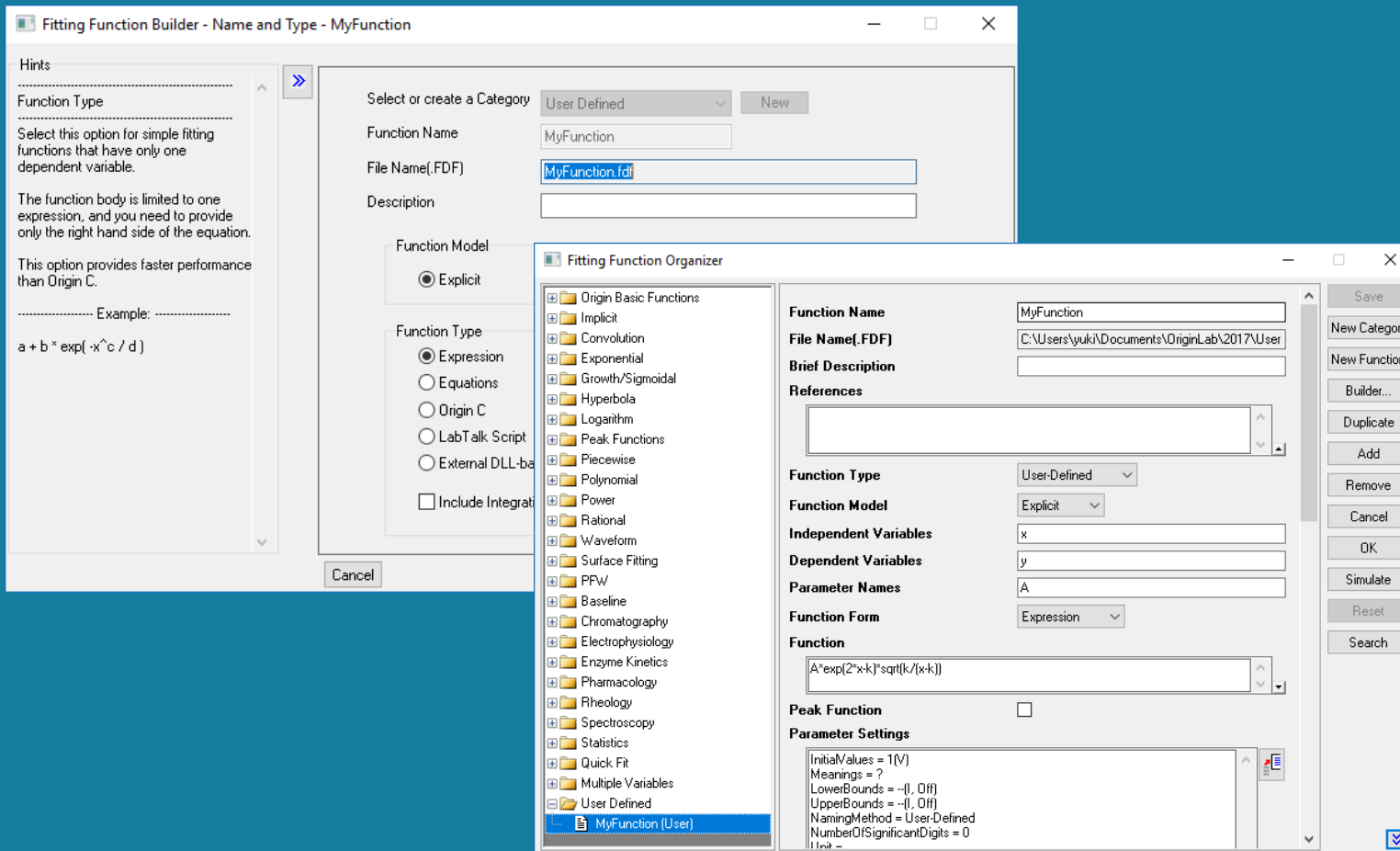
1. 在NLFit对话框中选择**Settings: Data**  
**Selection: Input Data: Add Plot**
2. **Settings: Data Selection: Multi-Data Fit**  
**Mode: Global Fit**
3. 勾选 **Parameters: Share box**





# User-defined Fitting Function

## 自定义拟合函数



## 1. Fitting Function Builder

按F8或者在菜单栏选择Tools: Fitting Function

Builder

## 2. Fitting Function Organizer

按F9或者在菜单栏选择Tools: Fitting Function

Organizer

Tutorial: <http://www.originlab.com/doc/Origin-Help/UserDef-FitFunc>

# Help

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## 帮助文档及资料

- 按 F1 快捷键
- Origin Blog: <http://blog.originlab.com/>
- Origin 中文视频教程 : <http://i.youku.com/oringinz>
- Origin 中文论坛 : [http://www.originlab.com/forum/forum.asp?FORUM\\_ID=28](http://www.originlab.com/forum/forum.asp?FORUM_ID=28)
- Origin软件用户QQ交流群 : 210500924 ; Origin软件上海科技大学交流群: 278919679

# Q&A

# Q&A

## 问答

1. What options exist for pasting graphs in other applications? 粘贴图形到其他应用文件可有几种格式？
2. How do I add tick marks to an axis at specific values ? 如何在坐标轴的某个值上加一个特殊的tick label ?
3. How do I know if an analysis result is not up to date? 如何知道数据分析结果是否与源数据同步？
4. How do I exclude some data from my analysis operation? 如何在数据分析过程中将某些数值除外？

Origin

2017

THANK YOU