Overview of Origin

➢ An easy to use data analysis and graphing software

➢ Supports more than 70 different types of plots

➢ Provides the most frequently used analysis procedures in statistics, signal processing, image processing and general mathematical calculations

➢ Not essential to know a lot of the math behind each calculation

➢ Very easy to produce publication quality graphs

➢ Used by more than 100,000 scientists and engineers

Origin vs. Matlab

➢ Choice of the software is a matter of personal preference

➢ Both can produce publication quality graphs

➢ Matlab is more suitable for someone who prefers coding

➢ Origin is more suitable for someone who prefers a GUI-based interface

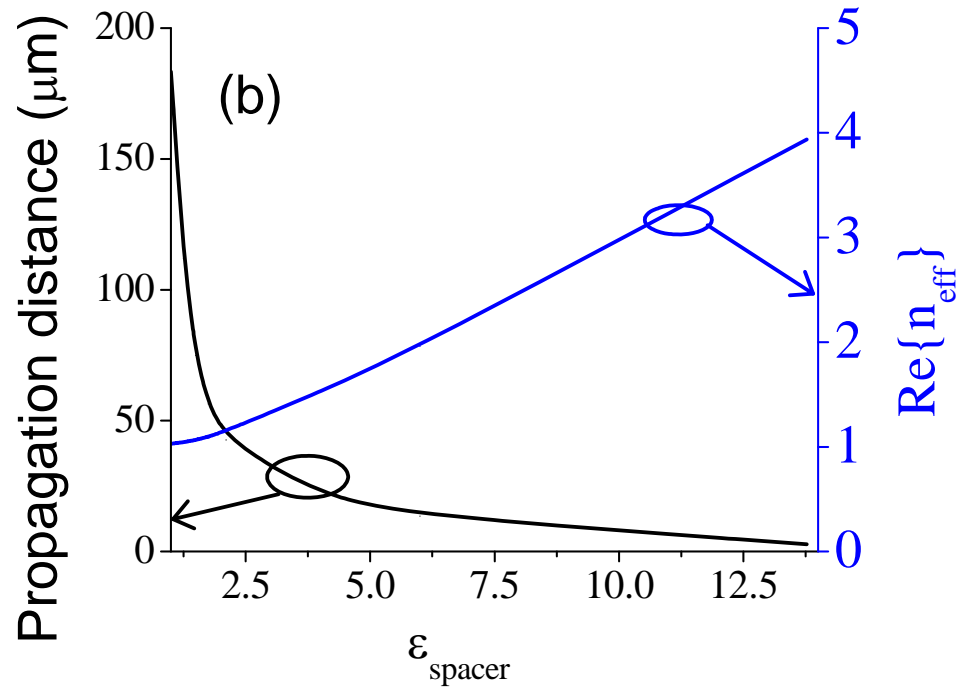➢ Calculation in Matlab is based on matrices while Origin is built upon spreadsheets

Why use Origin?

➢ Ease of use

➢ Better organization (spreadsheet vs. matrix)

➢ Flexible data import

➢ Option of embedding Origin plot in other documents

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Example of an Origin Worksheet

Data, plots, notes all can be stored in one single file

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Origin can easily import data from this file
Matlab will require some extra work

1 2
3 4
5 6

Easy to handle header and subheader lines

Import Wizard

Select Column Separator(s)

○ Comma ○ Space ○ Semicolon ⦿ Tab ○ Other [____]   Number of text header lines: [0 ⇕]

Preview of C:\C\VC32\Samples\Import and Export\S15-125-03.dat

```
Version:       2.1
No. of points:        1000
Sample:        YBCO milled
Measured on:   12/01/2004
Time:          03:20:39 AM
Run Type:  Trial Run 1

Time       Delta Temperature    Magnetic F
(sec)      (K)        (Oe)      (mm)
0.01       40.00      60.60     101.70
0.02       40.50      61.30     100.90
0.03       40.20      61.90     100.30
0.04       40.10      62.50     100.80
0.05       40.20      63.10     100.80
0.06       39.60      63.70     101.70
0.07       39.70      64.30     100.80
```

data	textdata	rowheaders

	1
1	2.1000

[Help]

Import Wizard - Header Lines

Number of main header lines(exclude subheader lines) [6 ▾] ↻   ☐ Line number start from bottom

Number of subheader lines [3 ▾] ↻   ☐ Auto determine subheader line

Column Header Assignment from Subheader Lines

Short Names	[<None> ▾] ↻	Comments	[<None> ▾] to [0 ▾] ↻
Long Names	[2 ▾] ↻	System Parameters	[<None> ▾] to [0 ▾] ↻
Units	[3 ▾] ↻	User Parameters	[<None> ▾] to [0 ▾] ↻
Characters to skip on each line	[0 ▾]		

Preview Font [System ▾]   Preview Lines [50 ▾]

Prefix: S=Short Name, L=Long Name, U=Units, P=Parameters, C=Comment, MH=Main Header, SH=Subheader

```
001 001MH        Version:  2.1
002 002MH        No. of points: 1000
003 003MH        Sample:  YBCO milled
004 004MH        Measured on: 12/01/2004
005 005MH        Time:  03:20:39 AM
006 006MH        Run Type: Trial Run 1
007 001SH
008 002SH  L     Time Delta Temperature Magnetic Field Position
```

[Cancel]   [<< Back] [Next >>]   [Finish]

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Conclusions

➢ Origin is not a replacement for Matlab

➢ For producing plots for publication, Origin can be worth the investment ($50/year for student license)