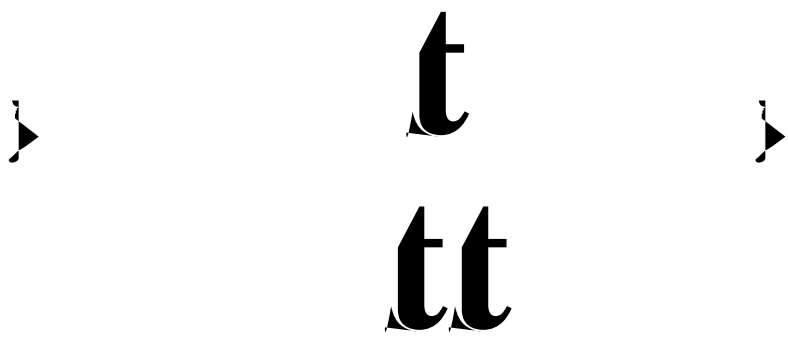
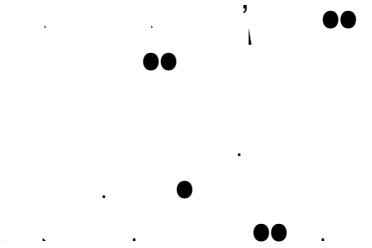
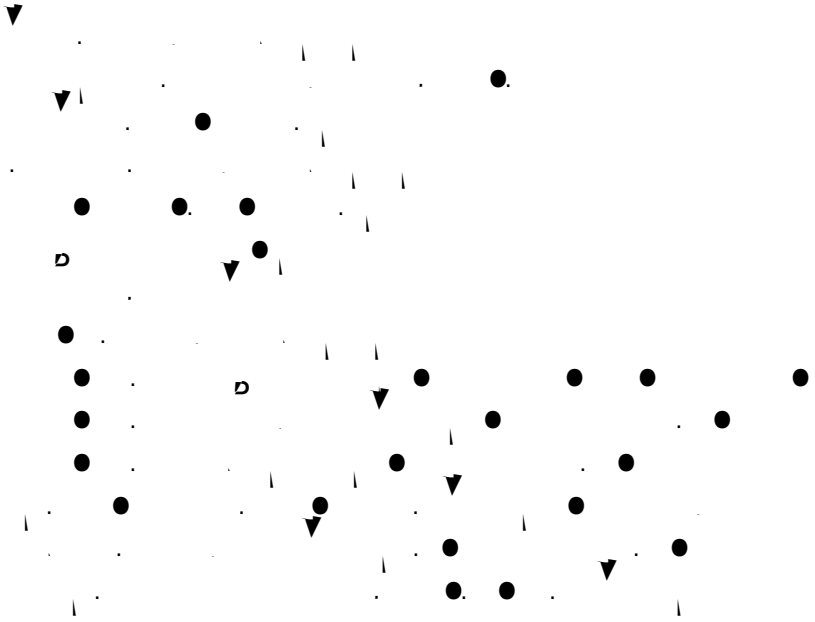


Contents

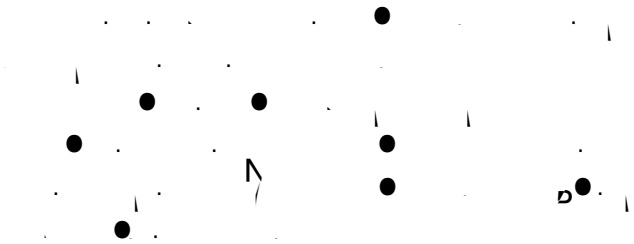
Chapter 4 Using Smooth Curve Fits



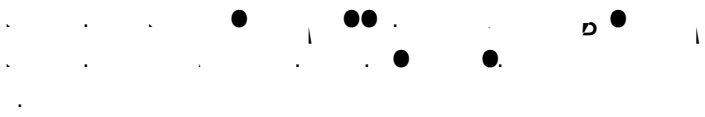
Chapter 5 Working with Curve Fit Results



Chapter 6 Other Curve Fit Features

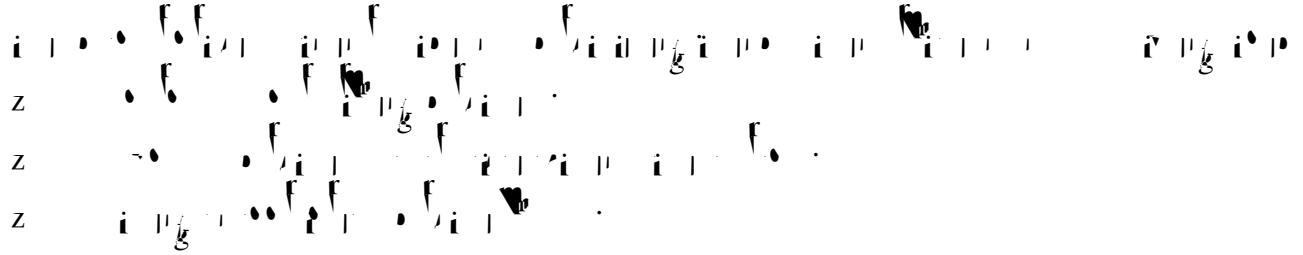


Appendixes

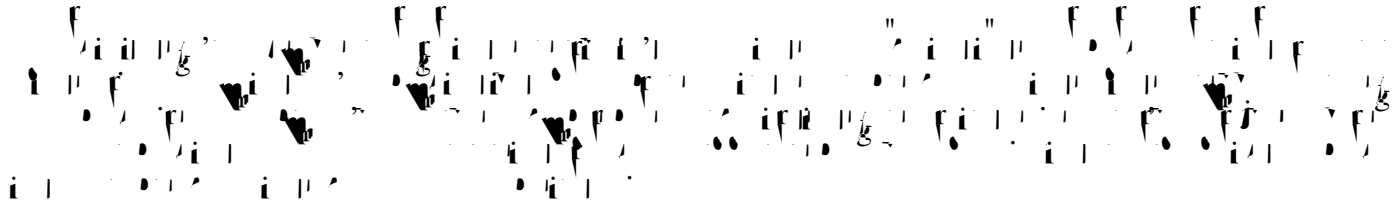


Curve Fitting Overview

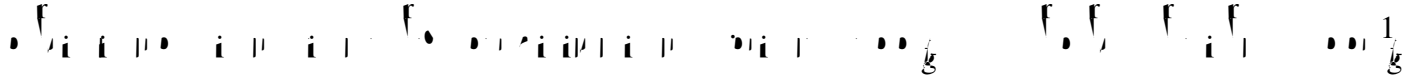
Chapter 1



1.1 Purpose of Curve Fitting

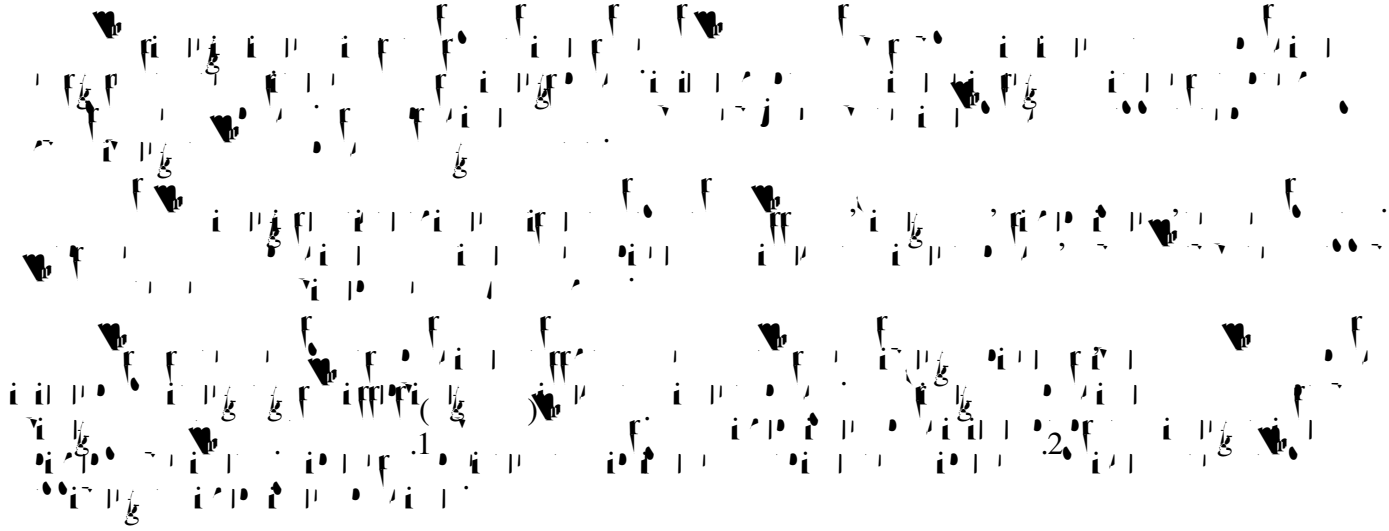


1.2 Types of Curve Fits

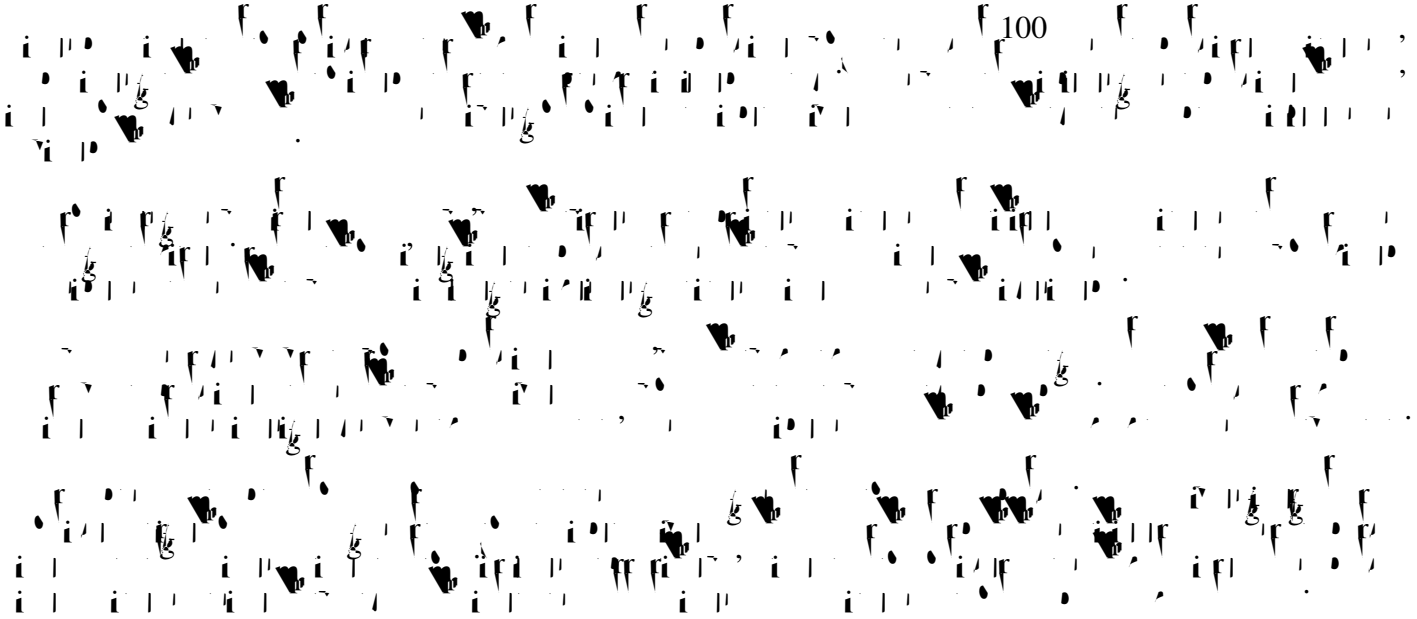


1.2.2 Nonlinear Curve Fits

1.2.3 Smoothing Curve Fits



1.3 Choosing a Curve Fit Model



Using Least Squares Curve Fits

Chapter 2

2.1 KaleidaGraph's Least Squares Curve Fits

2.1.1 Linear

2.1.2 Polynomial

2.1.3 Exponential

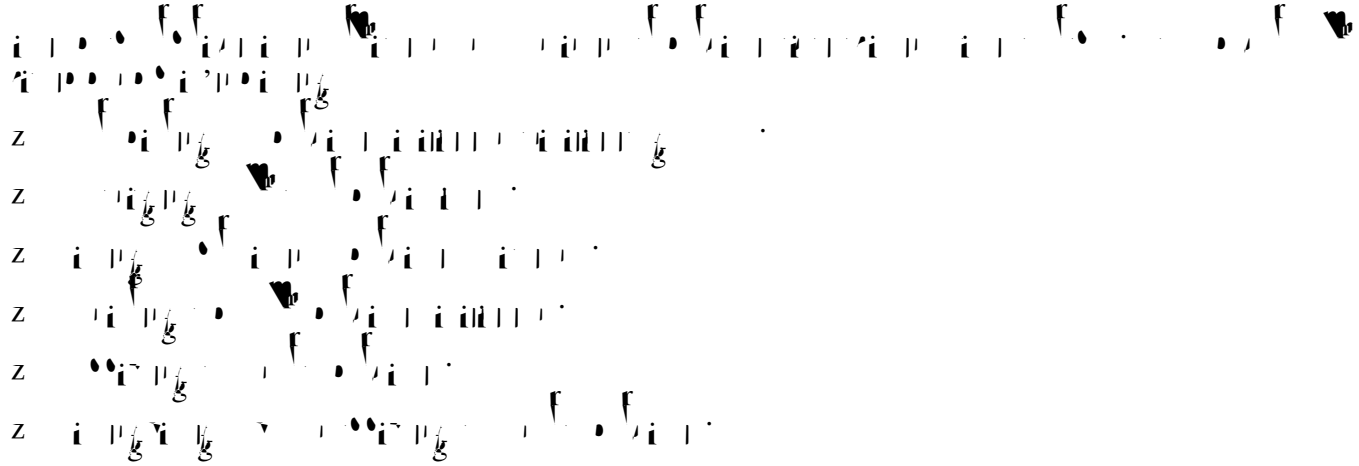
2.1.4 Logarithmic

2.1.5 Power

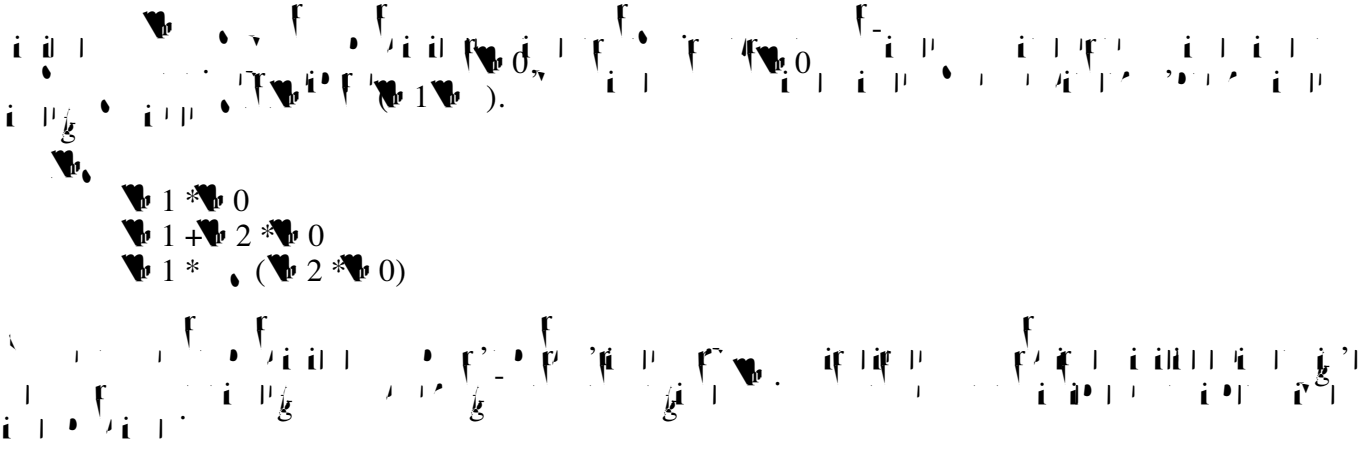
2.2 Applying a Least Squares Fit

Using Nonlinear Curve Fits

Chapter 3



3.1 Introduction to the General Curve Fit



3.2 General Curve Fit Basics

3.2.1 Curve Fit Definition

- 0.
- 1
- (*) ( )
- (0 0).
- 0, 1, 2, 3,
- 3.3.

t	t t
* +	1 * 0 + 2
+ *	1 + 2 * 0 3
+ * (*)	1 + 2 * (3 * 0)
* (*) * (* +)	1 * (2 * 0) * (3 * 0 +)

3.2.2 Initial Conditions

(0.001, 1, 1000).

1 * 0 + 2 1 0. 2 23
1 + 2 * 0 3 1 2 2 3 3 2
1 + 2 * (3 * 0) 1 2 1 3 0.
1 * (2 * 0) * (3 * 0 +) 1 2 0. 3 2.2 1

3.2.3 Curve Fit Definition Dialog

z ( ).

z .

5. **Degrees/Radians Buttons**

6. **Help...**

7. **File...**

3.2.4 Managing the Curve Fit List

1

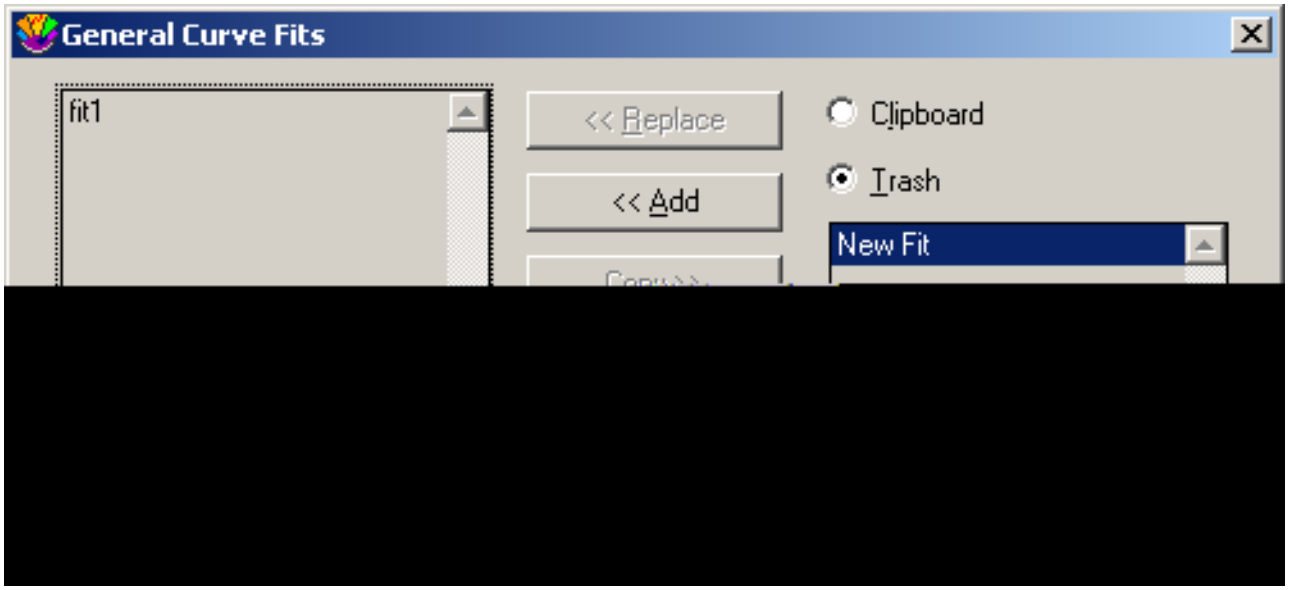
z ( ).

z

Adding a Curve Fit to the Master List

1.

2. 3-3 .

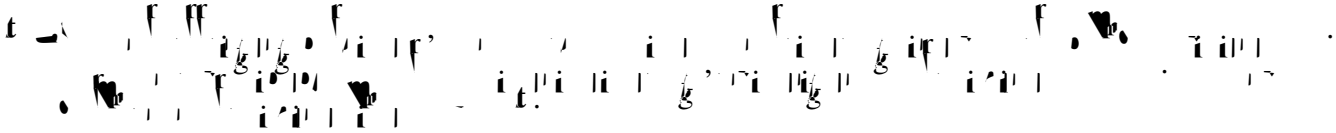


3-3

3.

Rearranging the Master Curve Fit List

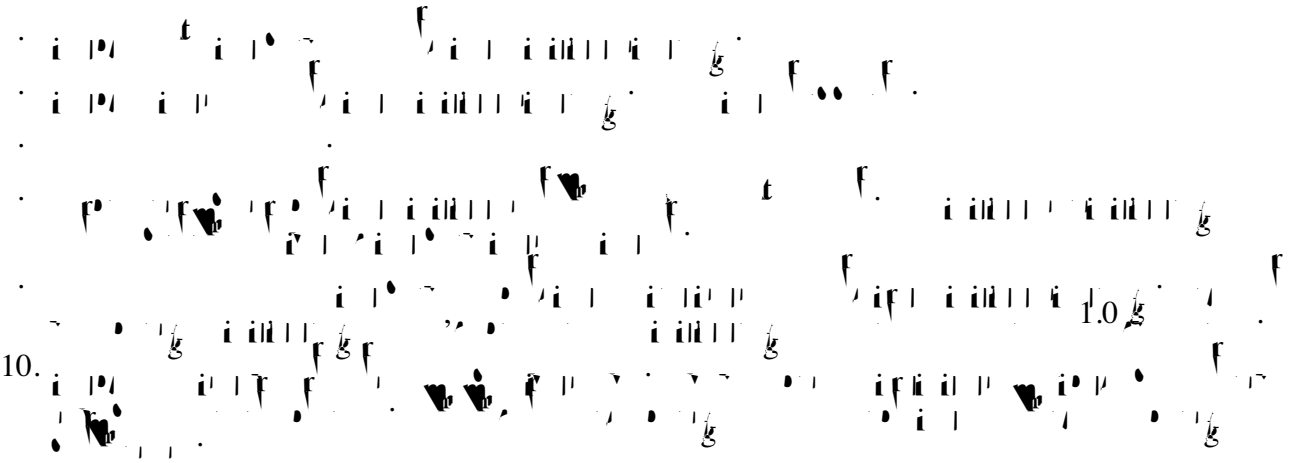
1.
2.
3.



Removing a Curve Fit from the Master List

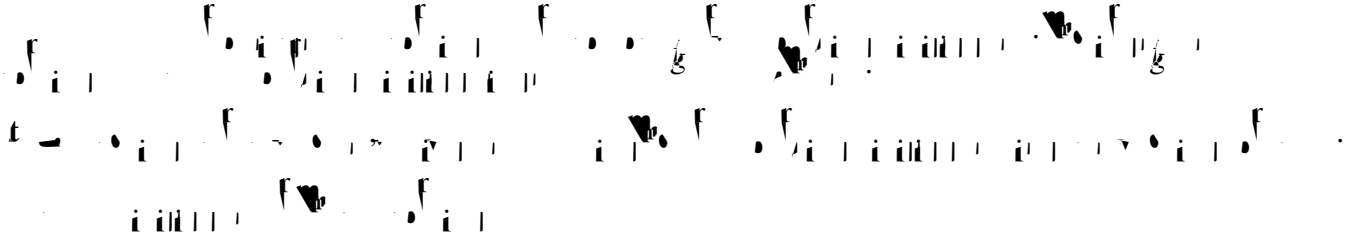
1.
2.
3.

3.3 Using the General Curve Fit



10.

Importing Definitions from a Macros File



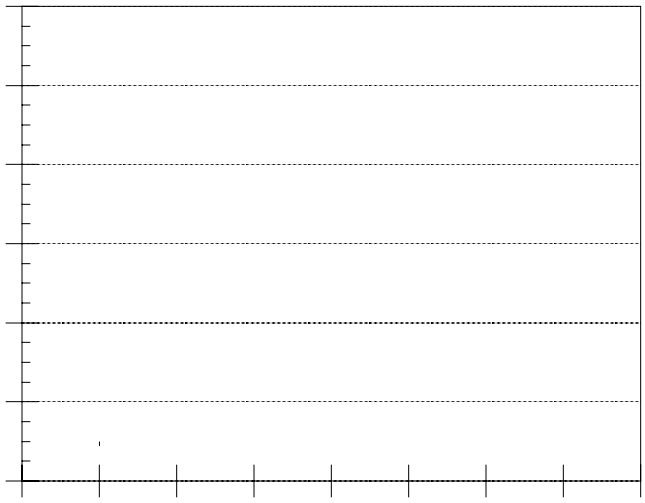
1.

3.3.2 Entering a Custom Curve Fit Definition

1.
2.
3.

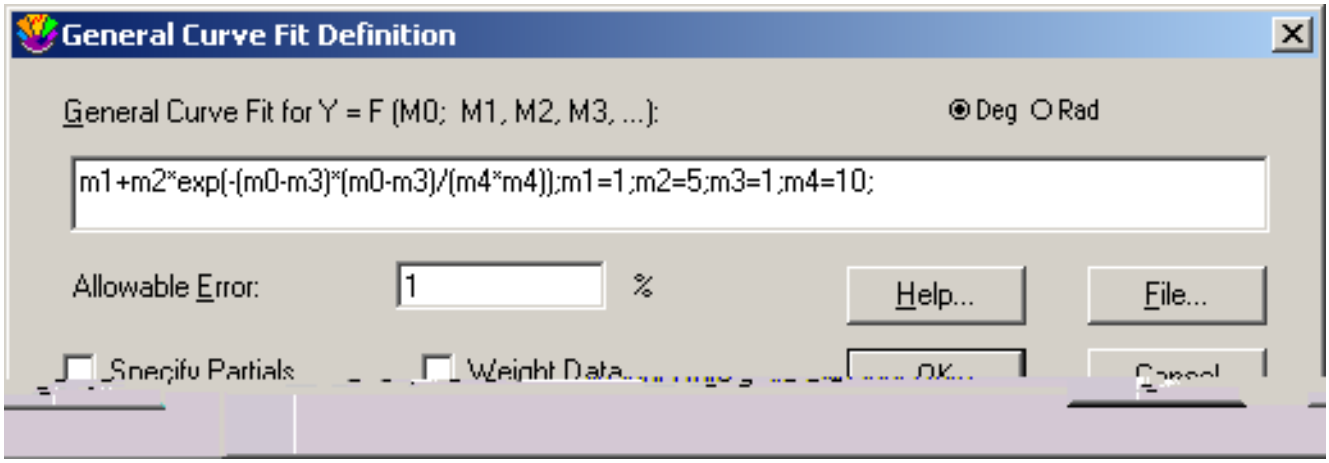
3.3.3 Applying a General Curve Fit

1. 3-



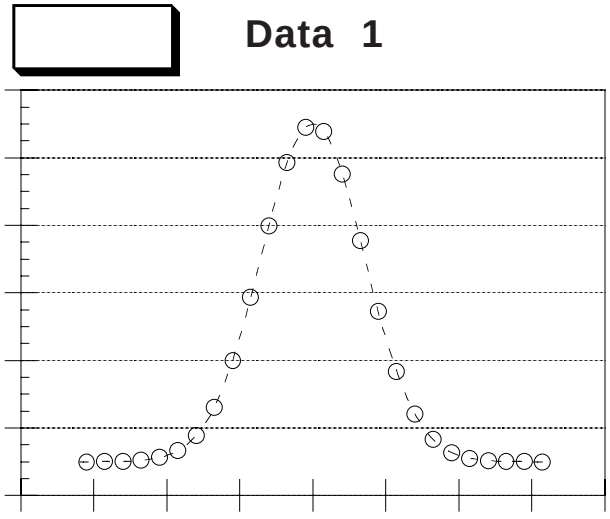
2. 3- 3- ( ).

3. 3- 3- 3.2. .


General Curve Fit Definition
General Curve Fit for Y = F (M0; M1, M2, M3, ...):
Deg
Rad
m1+m2*exp(-(m0-m3)*(m0-m3)/(m4*m4));m1=1;m2=5;m3=1;m4=10;
Allowable Error:
1
%
Help...
File...
OK...
Cancel

3-

3-


Data 1

3-

3.3.4 Weighting Data

1/(2). 1.0 1.0 1.0

3-10 .

3-10

3.3.5 Fitting Equations with Multiple Independent Variables

0.03 2). .110 0 03 .

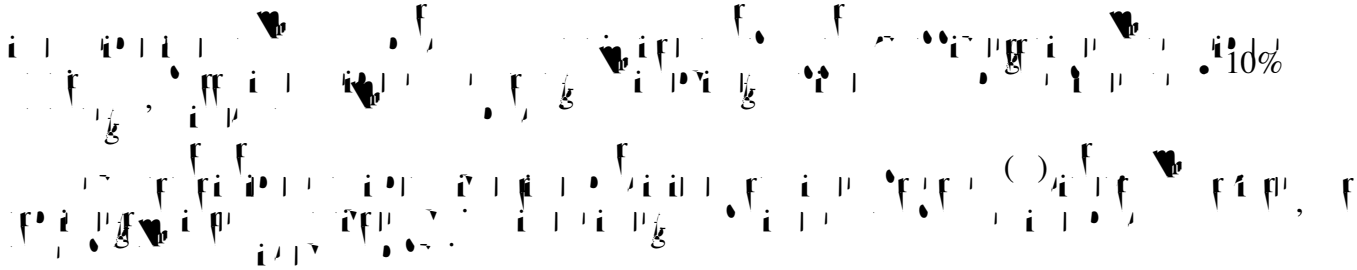
3.3.6 Setting Limits for Curve Fit Parameters

Using Smooth Curve Fits

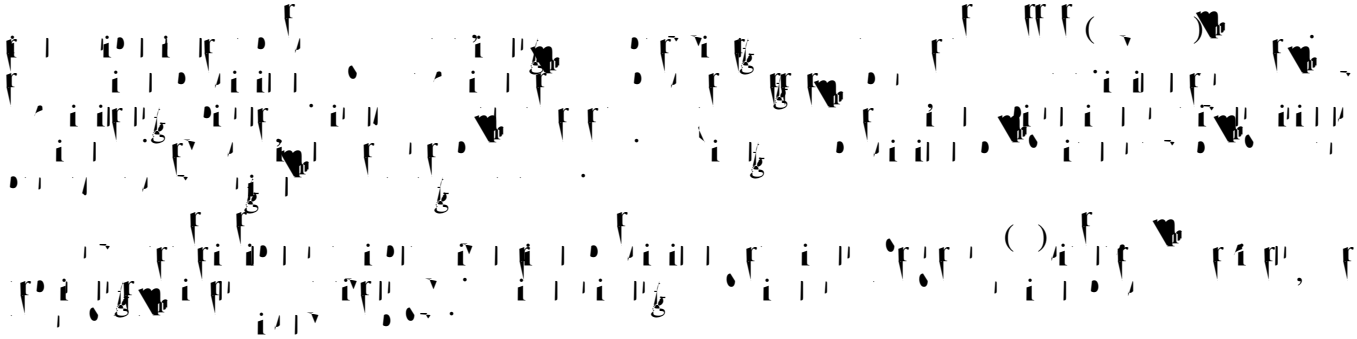
Chapter 4

4.1 KaleidaGraph’s Smooth Curve Fits

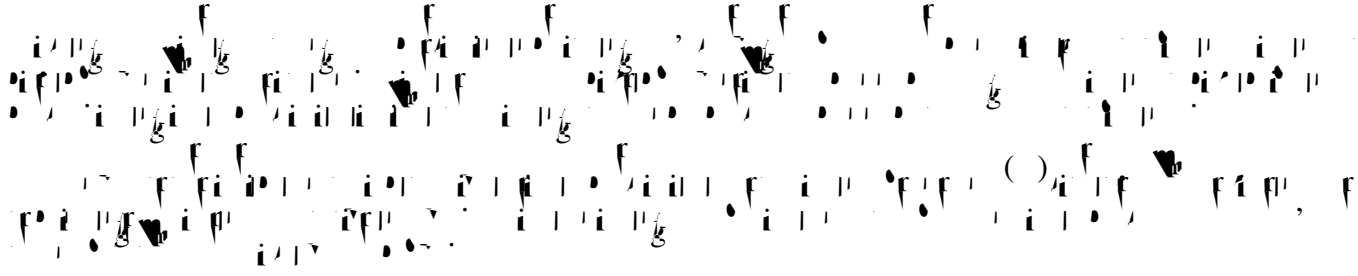
4.1.1 Smooth



4.1.2 Weighted



4.1.3 Cubic Spline

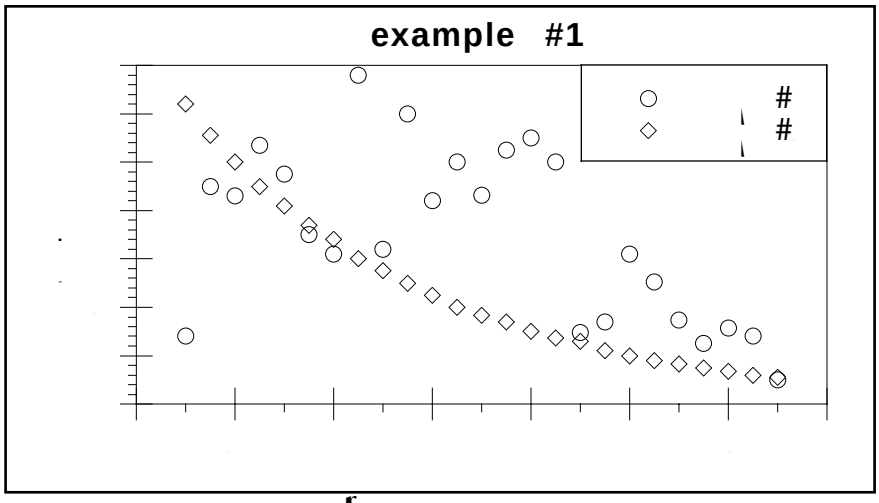


4.1.4 Interpolate

( )

4.2 Applying a Smoothing Fit

1. -1



-1

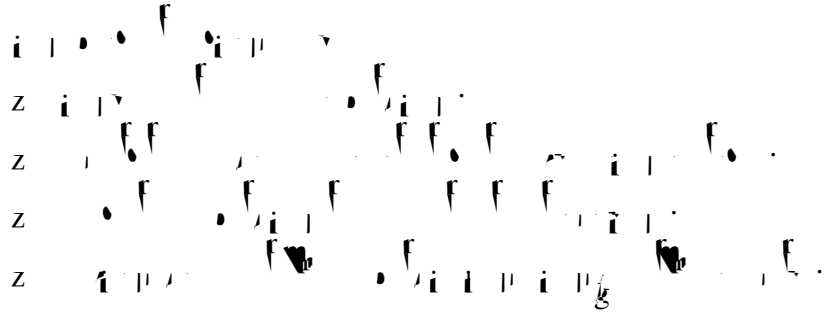
2. -2

-2

3.

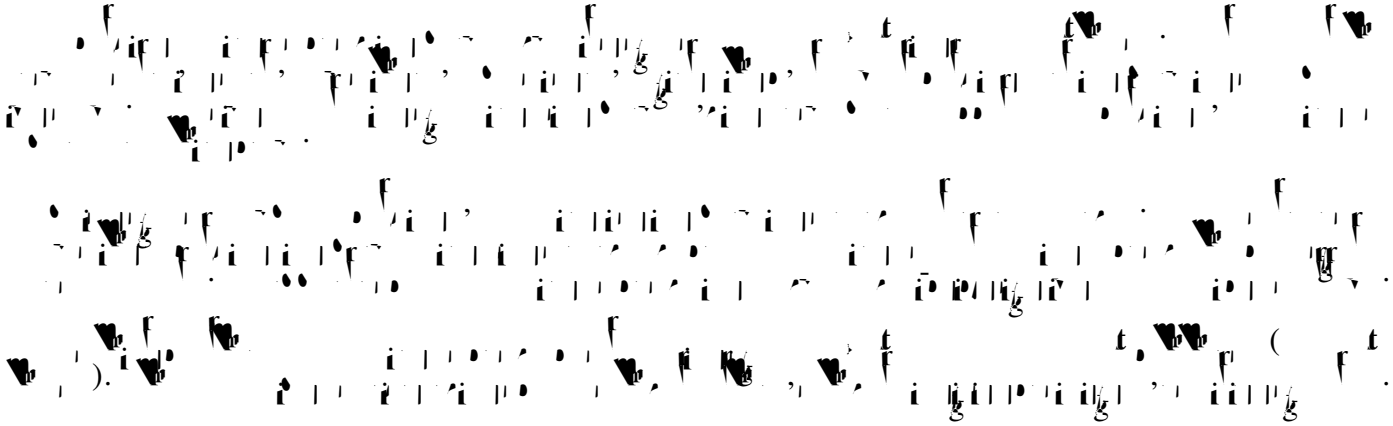
Working with Curve Fit Results

Chapter 5



5.1 Viewing Curve Fit Results

5.1.1 Displaying the Curve Fit Equation



5.1.2 Viewing Coefficients

1.

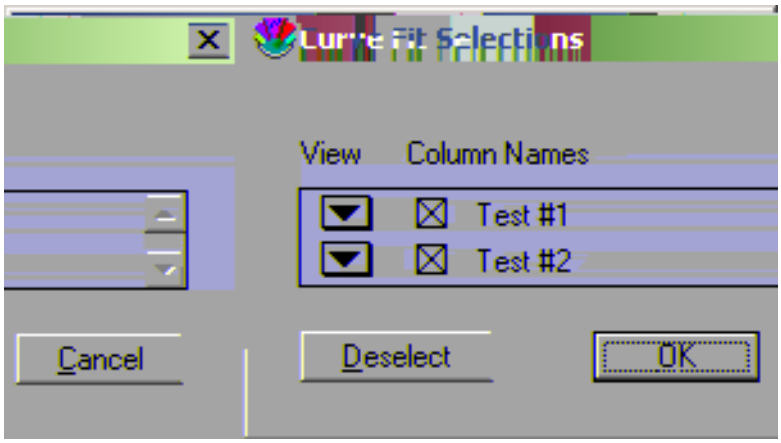
2.

3.

5.3 Exporting Curve Fit Results

5.3.1 Copying the Parameters to the Clipboard or Calculator

1. -3



-3

2.

3.

5.3.2 Copying the Curve Fit Values to the Data Window

1. -3
2.
3.

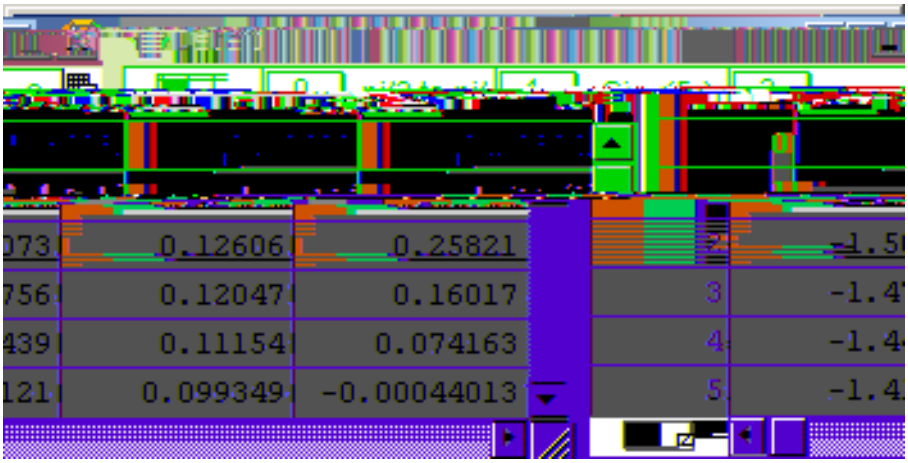
5.3.3 Copying the Residuals to the Data Window

1. -3
2.
3.

1.

2.

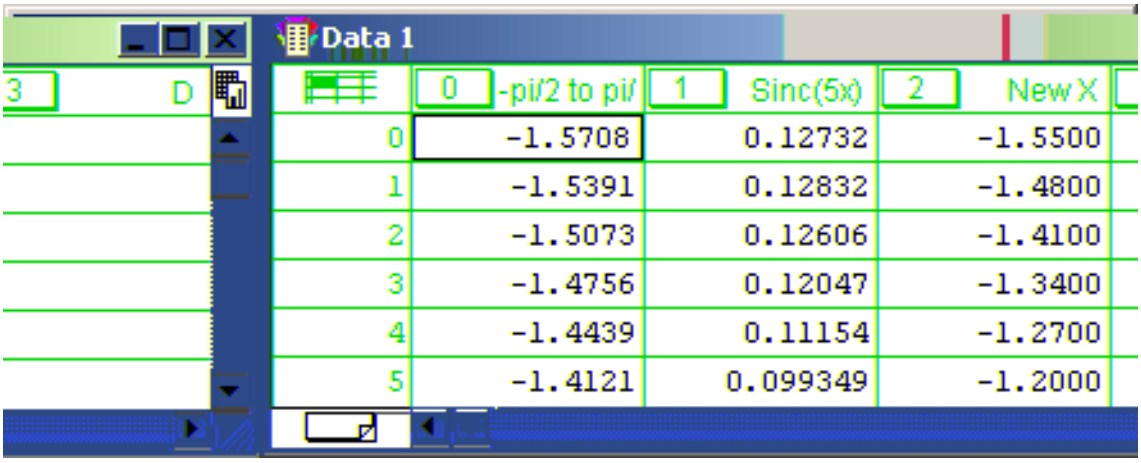
3.



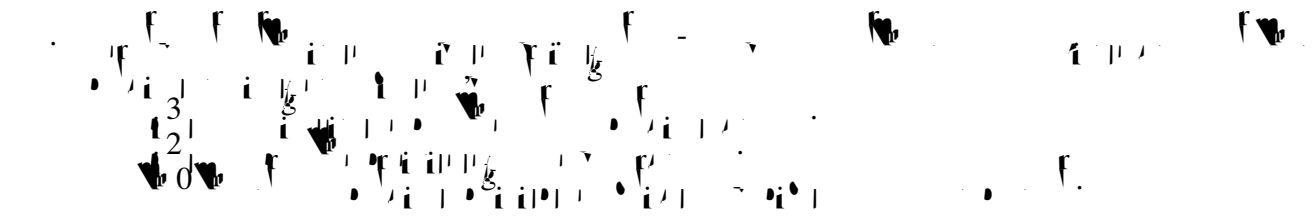
5.4.2 Using the Calculated Equation to Find Values

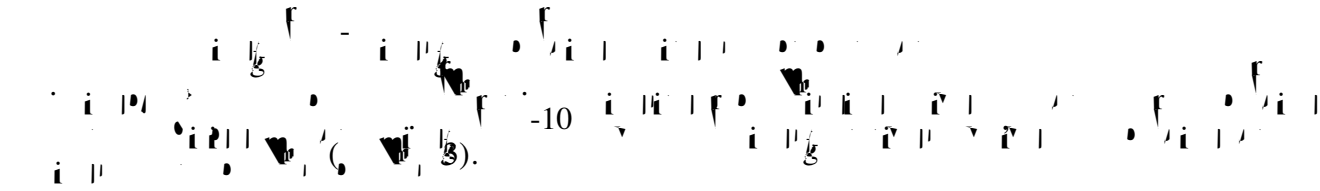
1. .3.1

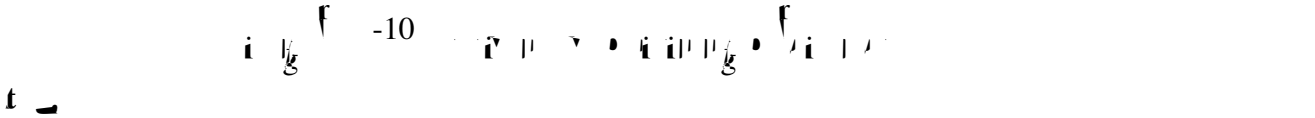
2. 2).



3.



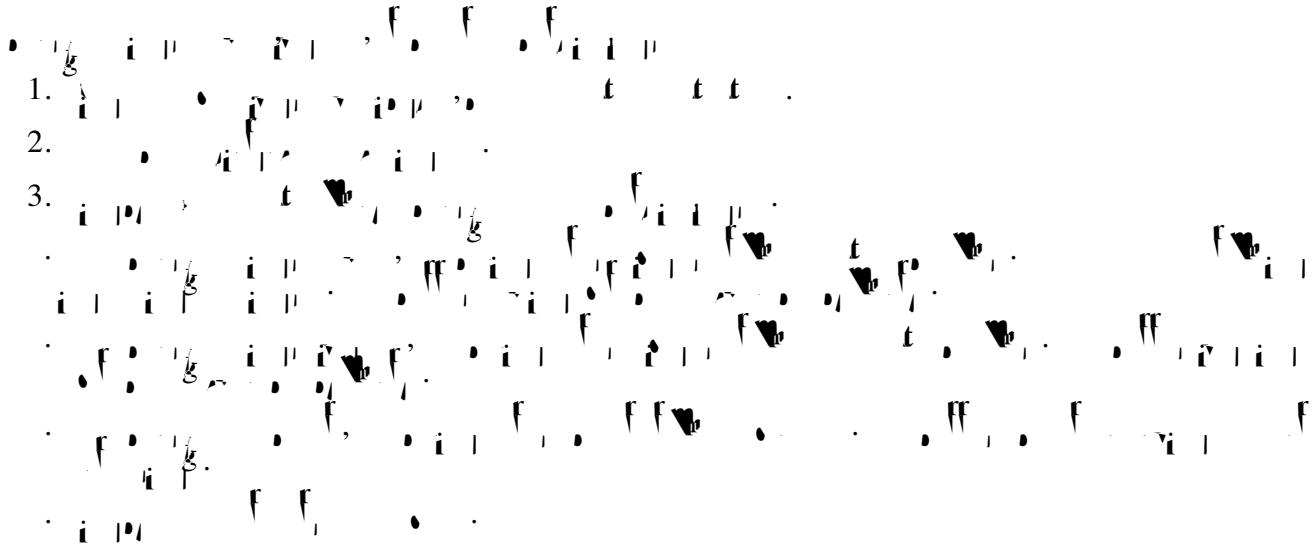




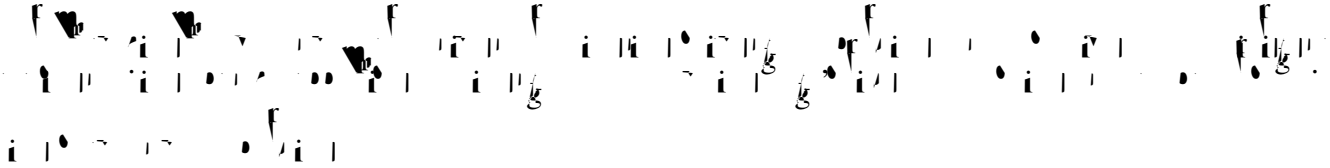
Other Curve Fit Features

Chapter 6

6.1 Changing Appearance of Curve Fit Lines



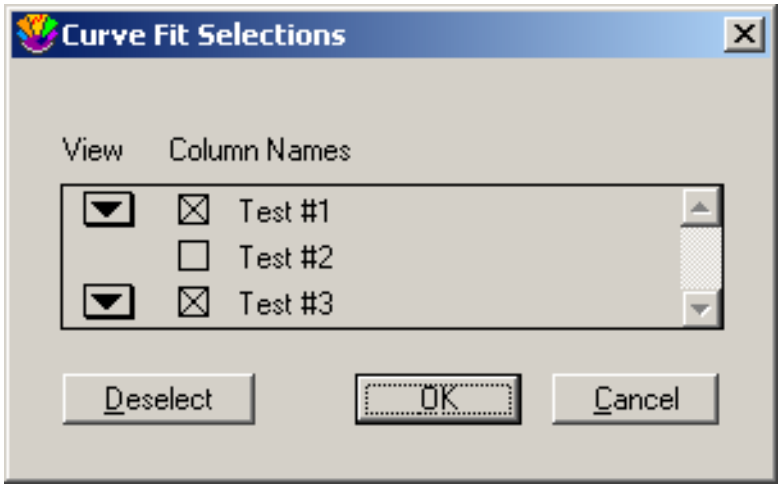
6.2 Displaying Only the Curve Fit



1.

6.6 Removing a Curve Fit

1. -2



-2

2.

3.

.3.1

Reference Information

Appendix B

B.1 Curve Fit References

General Curve Fit

N merical Recipe in C. (1).

Linear, Polynomial, Exponential, Logarithmic, and Power Curve Fits

S anda d Ma hema ical Table . (1).

Smooth Curve Fit

. Cea i e Comp ing, (1 0).

Weighted Curve Fit

. Graphical Me hod fo Da a Anal i . (1 3).

Cubic Spline Curve Fit

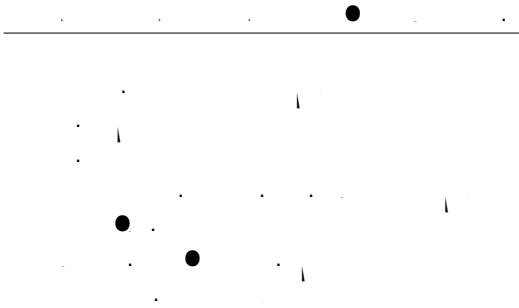
N merical Recipe in C. (1).

Interpolate Curve Fit

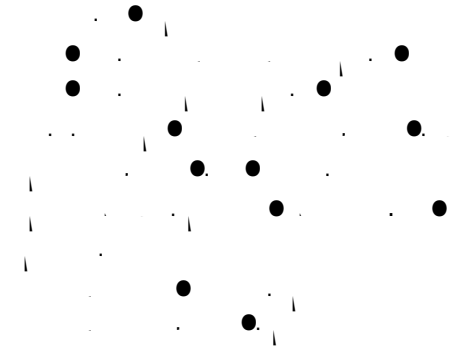
. Cea i e Comp ing, (1 0).

Index

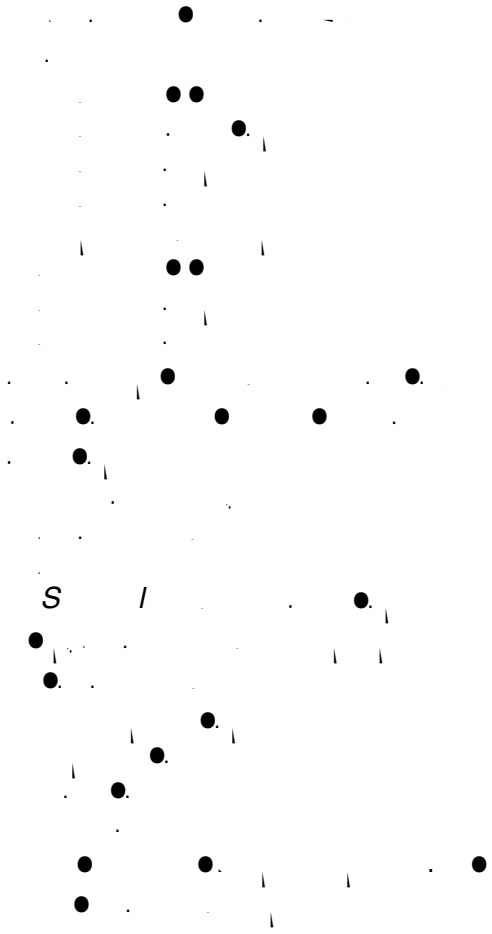
A



D

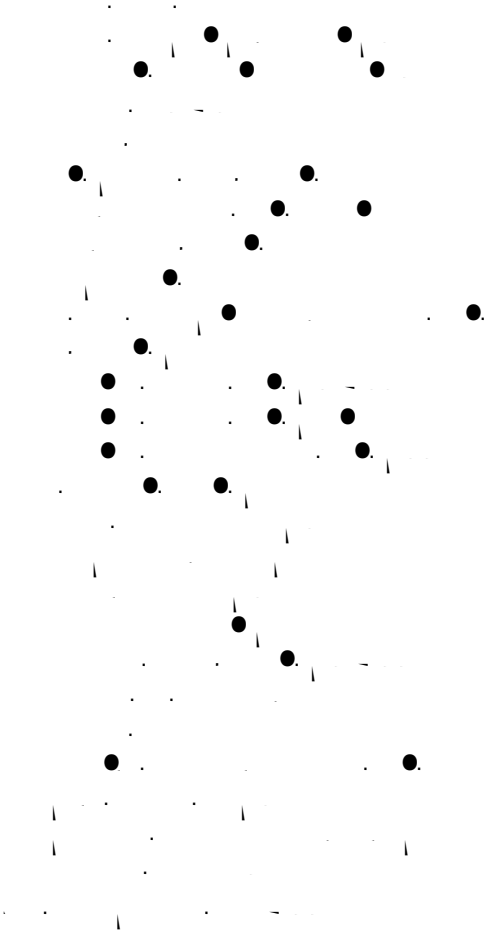


E

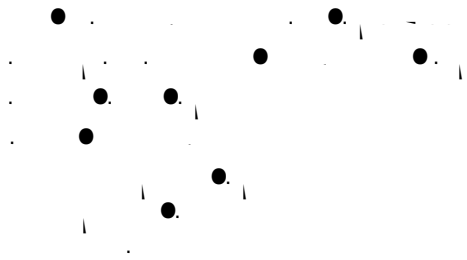


F

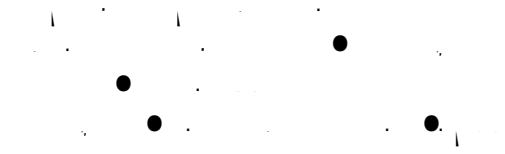
G

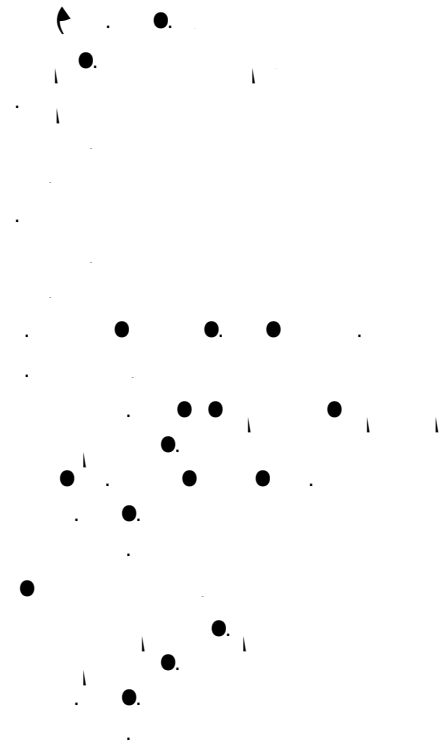


I

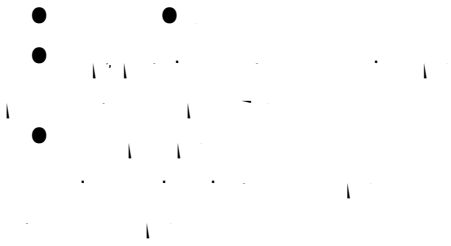


L





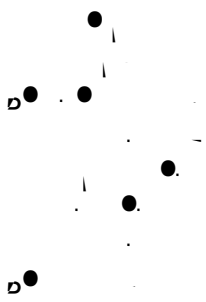
M

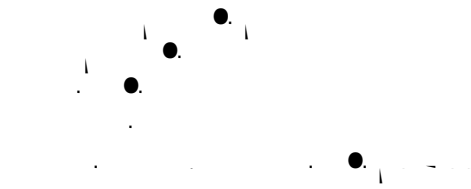


N

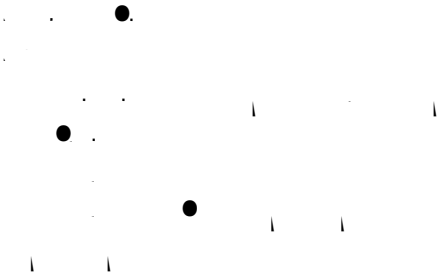
O

P

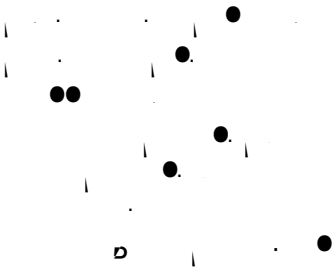




R

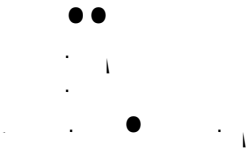


S



T

V



W