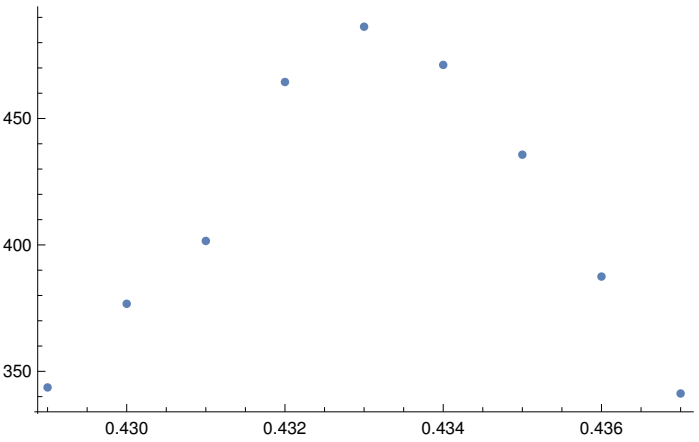
In[101]:=
```
SetDirectory[NotebookDirectory[]];
CvData = Import["128_cv.dat", "Table"];
MagnetData = Import["128_magnetization.dat", "Table"];
SusceptData = Import["128_susceptibility.dat", "Table"];
```

In[138]:=
```
ListPlot[Take[SusceptData, {130, 138}], PlotRange → Full]
```

Out[138]=



In[140]:=
```
SusceptFit = NonlinearModelFit[Take[SusceptData, {130, 138}],
    A * Exp[-(x - mu)^2 / (2 Sigma^2)], {{A, 450}, Sigma, mu}, x];
```

In[141]:=
```
SusceptFit[{"BestFit", "ParameterTable"}]
```

Out[141]=

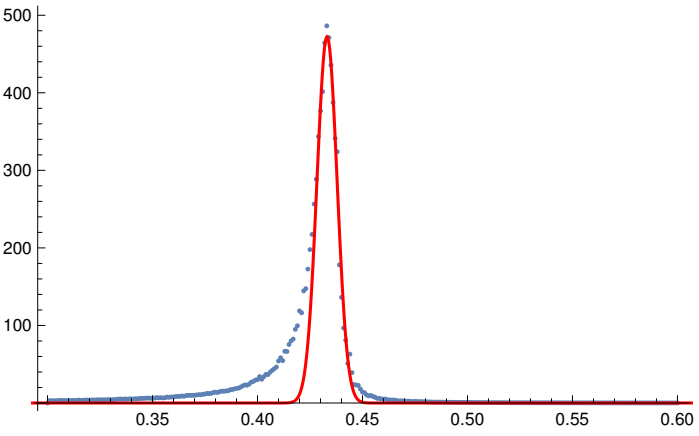
$$\left\{472.449\, e^{-21693.1\,(-0.433118+x)^2},\right.$$

	Estimate	Standard Error	t-Statistic	P-Value
A	472.449	8.02534	58.8696	1.61431×10^{-9}
Sigma	−0.00480092	0.000249746	−19.2232	1.28229×10^{-6}
mu	0.433118	0.000121397	3567.79	3.27271×10^{-20}

$\left.\right\}$

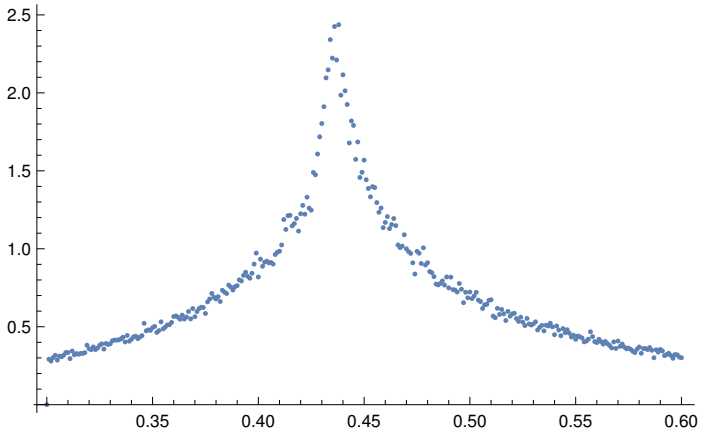
In[142]:=
```
Show[ListPlot[SusceptData, PlotRange → Full],
 Plot[SusceptFit[x], {x, 0, 0.8}, PlotRange → {{0, 0.8}, {0, 500}}, PlotStyle → Red]]
```

Out[142]=



In[143]:=
```
ListPlot[Take[CvData]]
```

Out[143]=



In[98]:=
```
CvFit = NonlinearModelFit[Take[CvData, {100, 150}],
  A * Exp[-(x - mu)^2 / (2 * Sigma^2)], {{A, 2}, {Sigma, 0.01}, {mu, 0.43}}, x]
```

Out[98]=

FittedModel[$1.75803\, e^{-852.389\,(-\ll 20 \gg + x)^2}$]

In[99]:=
```
CvFit[{"BestFit", "ParameterTable"}]
```

Out[99]=

$\{1.75803\, e^{-852.389\,(-0.43196+x)^2},$

	Estimate	Standard Error	t-Statistic	P-Value
A	1.75803	0.0237444	74.04	3.84961×10^{-51}
Sigma	0.0242196	0.000905478	26.7478	1.72066×10^{-30}
mu	0.43196	0.000647341	667.283	6.93199×10^{-97}

$\}$

In[100]:=
```
Show[ListPlot[CvData], Plot[CvFit[x], {x, 0, 0.8}, PlotRange → Full, PlotStyle → Red]]
```

Out[100]=