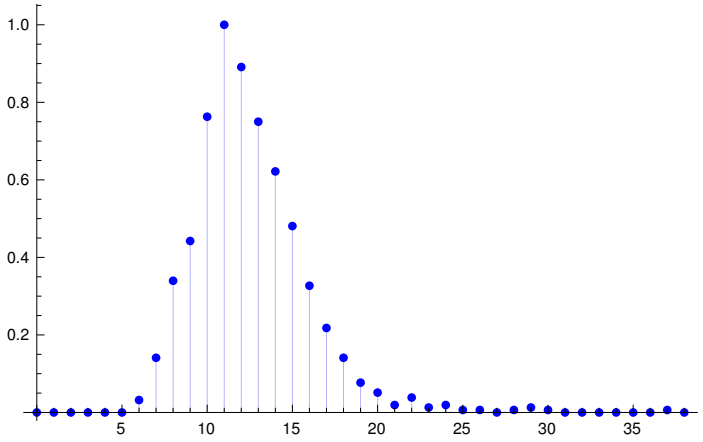
In[1]:=
```
rawData10 = Transpose[
    Import[
     "/home/neofelia/Desktop/Bachelor/static lambda/histograms/n0l05range10width1.csv",
     "Data", "HeaderLines" → 1]];
value10 = rawData10[[3]];
counter10 = rawData10[[4]];
maxCounter = Max[counter10];
hist10 = Transpose[{value10, counter10 / maxCounter}];

rawData20 = Transpose[
    Import[
     "/home/neofelia/Desktop/Bachelor/static lambda/histograms/n0l05range20width1.csv",
     "Data", "HeaderLines" → 1]];
value20 = rawData20[[3]];
counter20 = rawData20[[4]];
maxCounter20 = Max[counter20];
hist20 = Transpose[{value20, counter20 / maxCounter20}];

rawData30 = Transpose[
    Import[
     "/home/neofelia/Desktop/Bachelor/static lambda/histograms/n0l05range30width1.csv",
     "Data", "HeaderLines" → 1]];
value30 = rawData30[[3]];
counter30 = rawData30[[4]];
maxCounter30 = Max[counter30];
hist30 = Transpose[{value30, counter30 / maxCounter30}];

rawData40 = Transpose[
    Import[
     "/home/neofelia/Desktop/Bachelor/static lambda/histograms/n0l05range40width1.csv",
     "Data", "HeaderLines" → 1]];
value40 = rawData40[[3]];
counter40 = rawData40[[4]];
maxCounter40 = Max[counter40];
hist40 = Transpose[{value40, counter40 / maxCounter40}];
```

In[21]:=
```
rawData110 = Transpose[
    Import[
     "/home/neofelia/Desktop/Bachelor/static lambda/histograms/n0l05range110width1.csv",
     "Data", "HeaderLines" → 1]];
value110 = rawData110[[3]];
counter110 = rawData110[[4]];
maxCounter110 = Max[counter110];
hist110 = Transpose[{value110, counter110 / maxCounter110}];

rawData120 = Transpose[
    Import[
     "/home/neofelia/Desktop/Bachelor/static lambda/histograms/n0l05range120width1.csv",
     "Data", "HeaderLines" → 1]];
value120 = rawData120[[3]];
counter120 = rawData120[[4]];
maxCounter120 = Max[counter120];
hist120 = Transpose[{value120, counter120 / maxCounter120}];

rawData130 = Transpose[
    Import[
     "/home/neofelia/Desktop/Bachelor/static lambda/histograms/n0l05range130width1.csv",
     "Data", "HeaderLines" → 1]];
value130 = rawData130[[3]];
counter130 = rawData130[[4]];
maxCounter130 = Max[counter130];
hist130 = Transpose[{value130, counter130 / maxCounter130}];

rawData140 = Transpose[
    Import[
     "/home/neofelia/Desktop/Bachelor/static lambda/histograms/n0l05range140width1.csv",
     "Data", "HeaderLines" → 1]];
value140 = rawData140[[3]];
counter140 = rawData140[[4]];
maxCounter140 = Max[counter140];
hist140 = Transpose[{value140, counter140 / maxCounter140}];
```

In[41]:=
```
rawData10 = Transpose[
    Import[
     "/home/neofelia/Desktop/Bachelor/static lambda/histograms/n0l05range10width1.csv",
     "Data", "HeaderLines" → 1]];
value10 = rawData10[[3]];
counter10 = rawData10[[4]];
maxCounter = Max[counter10];
hist10 = Transpose[{value10, counter10 / maxCounter}];
ListPlot[{hist10}, Filling -> Axis, PlotRange → All, PlotStyle → Blue]
```

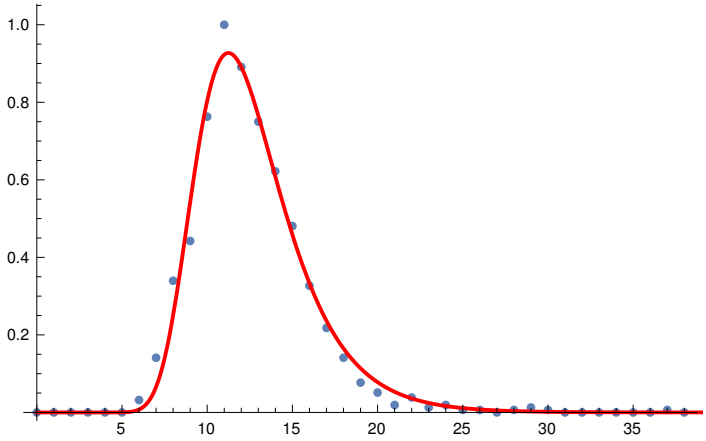
Out[46]=



In[47]:=
```
nlm10 = NonlinearModelFit[hist10, A0 * e^(-e^((-a-x)/b) + (-a-x)/b) / b, {{A0}, {b}, {a, -10}}, x];
Normal[nlm10];
 nlm10["BestFitParameters"]
(*nlm["FitResiduals"] ;  *)
Show[ ListPlot[hist10,  PlotRange → All],
 Plot[nlm10[x], {x, 0, 200} ,  PlotRange → {{0, 200}, {0, 100}},  PlotStyle → {Thick,  Red} ]]
```

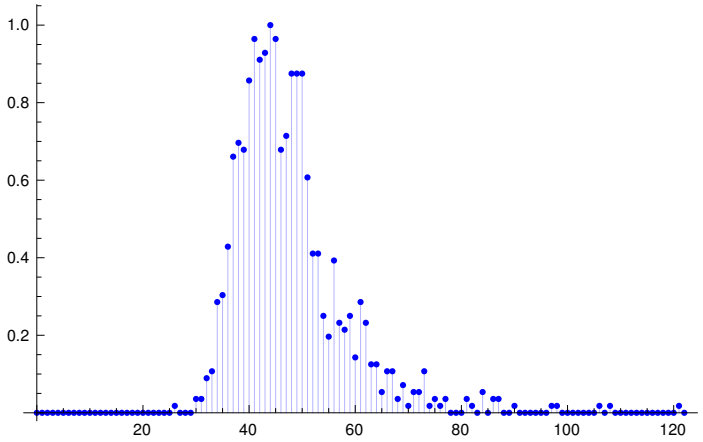
Out[49]= {A0 → 6.40601, b → 2.5418, a → −11.2473}

Out[50]=



In[51]:=
```
ListPlot[{hist20}, Filling -> Axis, PlotRange → All, PlotStyle → Blue]
```

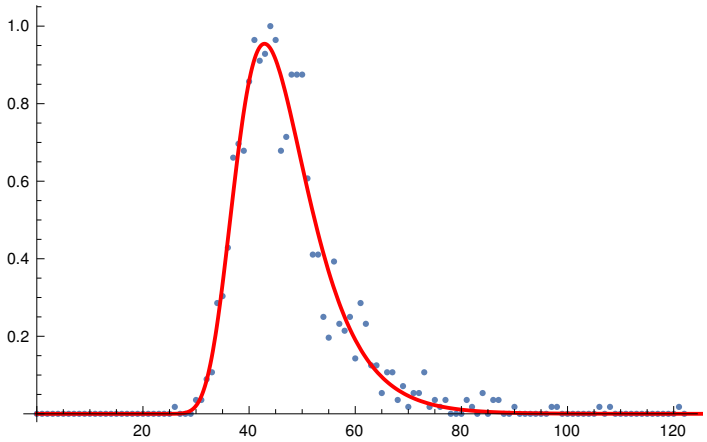
Out[51]=



In[52]:=
```
nlm20 = NonlinearModelFit[hist20, A0 * e^(-e^((-a-x)/b) + (-a-x)/b) / b, {{A0}, {b}, {a, -45}}, x];

Normal[nlm20];
 nlm10["BestFitParameters"]
(*nlm["FitResiduals"] ;  *)
Show[ ListPlot[hist20,  PlotRange → All],
  Plot[nlm20[x], {x, 0, 200} ,  PlotRange → {{0, 200}, {0, 100}},  PlotStyle → {Thick,  Red} ]]
```

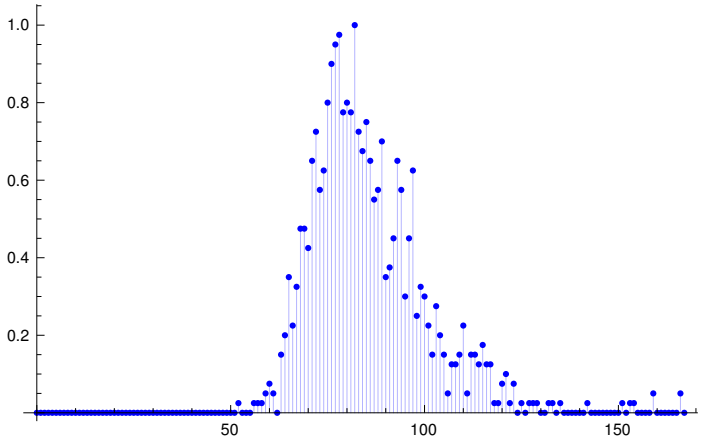
Out[54]= {A0 → 6.40601, b → 2.5418, a → −11.2473}

Out[55]=



In[56]:=
```
ListPlot[{hist30}, Filling -> Axis, PlotRange → All, PlotStyle → Blue]
```

Out[56]=

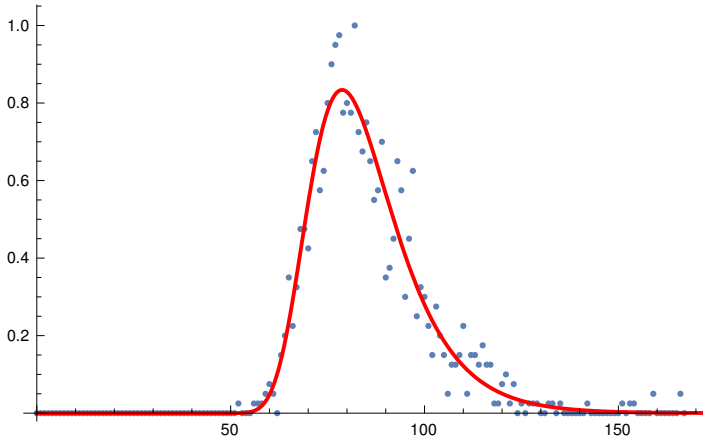


In[57]:=
```
nlm30 = NonlinearModelFit[hist30, A0 * e^(-e^((-a-x)/b) + (-a-x)/b) / b, {{A0}, {b}, {a, -70}}, x];

Normal[nlm30];
 nlm30["BestFitParameters"]
(*nlm["FitResiduals"] ;  *)
Show[ ListPlot[hist30,  PlotRange → All],
  Plot[nlm30[x], {x, 0, 200} ,  PlotRange → {{0, 200}, {0, 100}},  PlotStyle → {Thick,  Red} ]]
```

Out[59]= {A0 → 24.7088, b → 10.902, a → −78.7481}

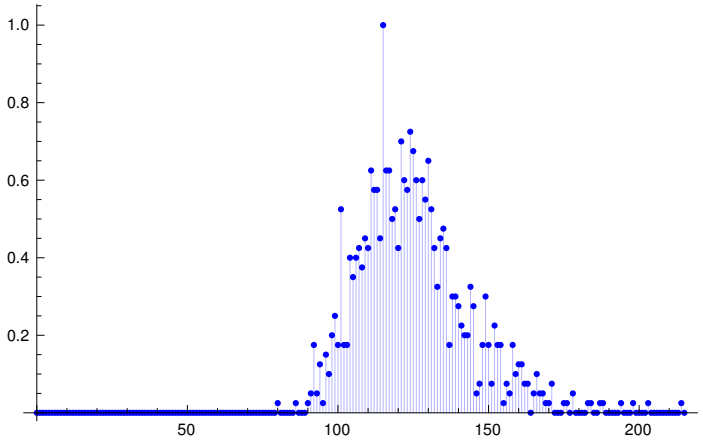
General: Exp[−1363.22] is too small to represent as a normalized machine number; precision may be lost.

Out[60]=



In[61]:=
```
ListPlot[{hist40}, Filling -> Axis, PlotRange → All, PlotStyle → Blue]
```

Out[61]=

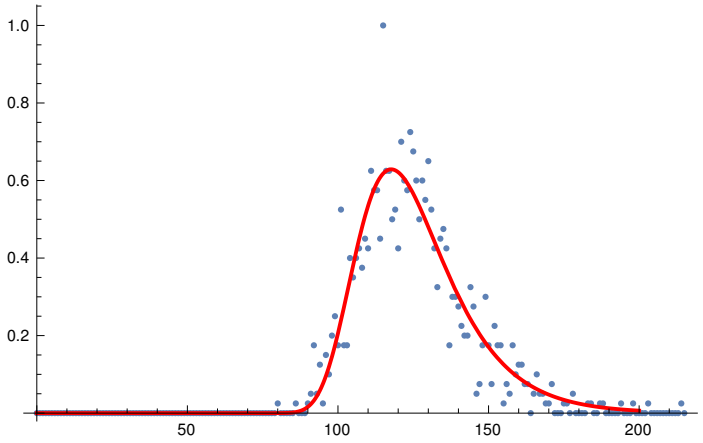


In[62]:=
```
nlm40 = NonlinearModelFit[hist40, A0 * e^(-e^((-a-x)/b) + (a-x)/b) / b, {{A0}, {b}, {a, -120}}, x];

Normal[nlm40];
 nlm40["BestFitParameters"]
(*nlm["FitResiduals"] ;  *)
Show[ ListPlot[hist40,  PlotRange → All],
 Plot[nlm40[x], {x, 0, 200} ,  PlotRange → {{0, 200}, {0, 100}},  PlotStyle → {Thick,  Red} ]]
```

Out[64]= {A0 → 25.1935, b → 14.7388, a → −117.674}

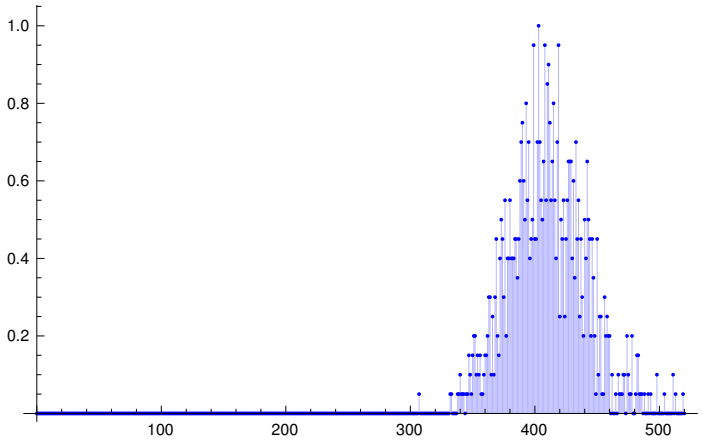
General: Exp[−2924.74] is too small to represent as a normalized machine number; precision may be lost.

Out[65]=



In[66]:=
```
ListPlot[{hist110}, Filling -> Axis, PlotRange → All, PlotStyle → Blue]
```

Out[66]=

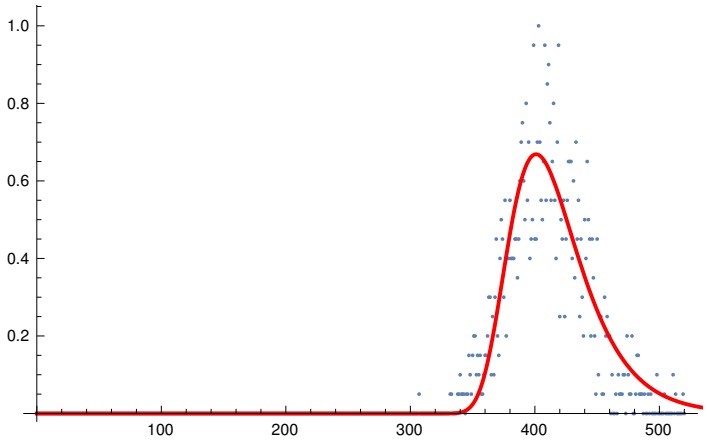


In[67]:=
```
nlm110 = NonlinearModelFit[hist110, A0 * e^(-e^((-a-x)/b) + (-a-x)/b) / b, {{A0}, {b}, {a, -420}}, x];
Normal[nlm110];
 nlm110["BestFitParameters"]
(*nlm["FitResiduals"] ;  *)
Show[ ListPlot[hist110,  PlotRange → All],
 Plot[nlm110[x], {x, 0, 600} ,  PlotRange → {{0, 600}, {0, 100}},  PlotStyle → {Thick,  Red} ]]
```

Out[69]= {A0 → 50.9666, b → 28.0381, a → −400.994}

General: Exp[−1.6255 × 10^6] is too small to represent as a normalized machine number; precision may be lost.

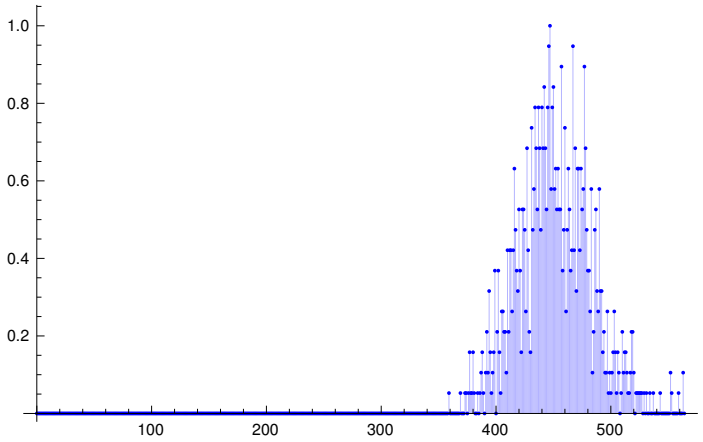
Out[70]=



In[71]:=

```
ListPlot[{hist120}, Filling -> Axis, PlotRange → All, PlotStyle → Blue]
```

Out[71]=



In[72]:=

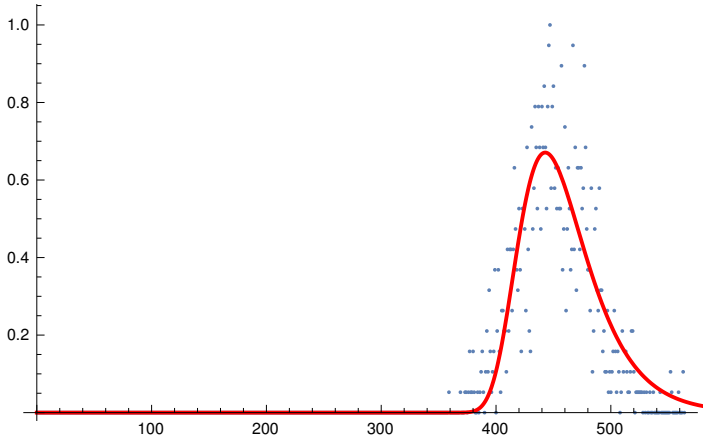
```
nlm120 = NonlinearModelFit[hist120, A0 * e^(-e^((-a-x)/b) + (-a-x)/b) / b, {{A0}, {b}, {a, -450}}, x];

Normal[nlm120];
 nlm120["BestFitParameters"]
(*nlm["FitResiduals"] ;  *)
Show[ ListPlot[hist120,  PlotRange → All],
 Plot[nlm120[x], {x, 0, 600} ,  PlotRange → {{0, 600}, {0, 100}},  PlotStyle → {Thick,  Red} ]]
```

Out[74]=

$$\{A0 \to 53.5765,\ b \to 29.3832,\ a \to -442.849\}$$

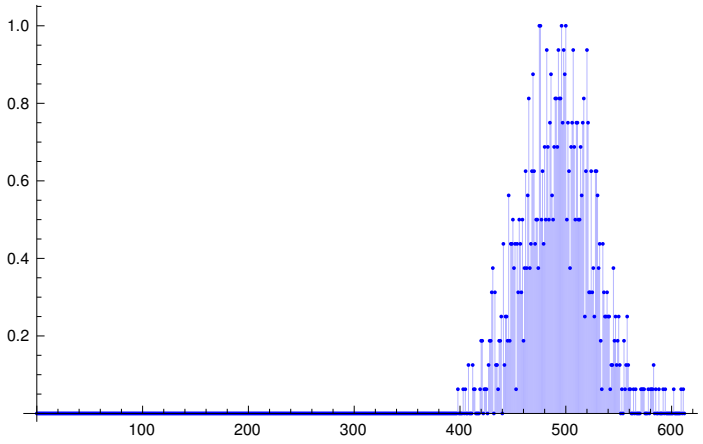
General: $\text{Exp}\left[-3.50988 \times 10^{6}\right]$ is too small to represent as a normalized machine number; precision may be lost.

Out[75]=



In[76]:=
```
ListPlot[{hist130}, Filling -> Axis, PlotRange → All, PlotStyle → Blue]
```

Out[76]=

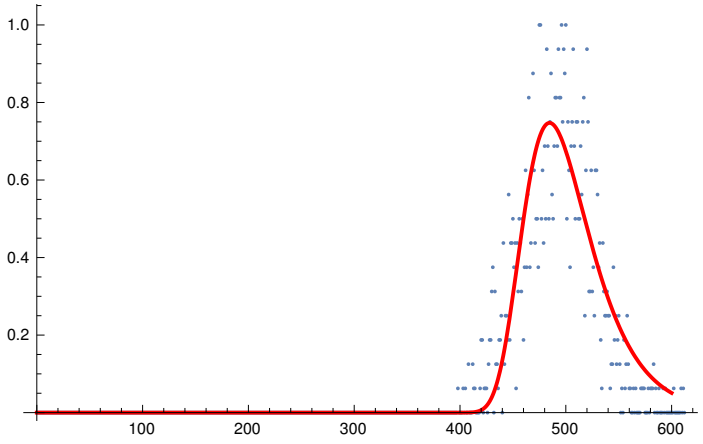


In[77]:=
```
nlm130 = NonlinearModelFit[hist130, A0 * e^(-e^((-a-x)/b) + (-a-x)/b) / b, {{A0}, {b}, {a, -500}}, x];

Normal[nlm130];
 nlm130["BestFitParameters"]
(*nlm["FitResiduals"] ;  *)
Show[ ListPlot[hist130,  PlotRange → All],
 Plot[nlm130[x], {x, 0, 600} ,  PlotRange → {{0, 600}, {0, 100}},  PlotStyle → {Thick,  Red} ]]
```

Out[79]= {A0 → 63.9437, b → 31.4775, a → −484.663}

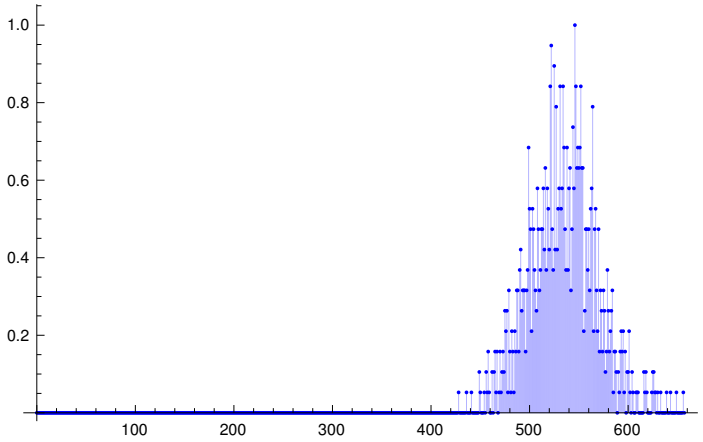
General: Exp[−4.86091 × 10^6] is too small to represent as a normalized machine number; precision may be lost.

Out[80]=



In[81]:=
```
ListPlot[{hist140}, Filling -> Axis, PlotRange → All, PlotStyle → Blue]
```

Out[81]=

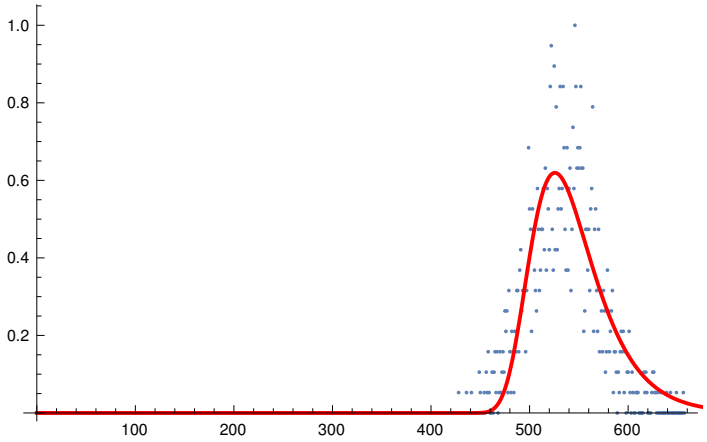


In[82]:=
```
nlm140 = NonlinearModelFit[hist140, A0 * e^(-e^((-a-x)/b) + (-a-x)/b) / b, {{A0}, {b}, {a, -550}}, x];

Normal[nlm140];
 nlm140["BestFitParameters"]
(*nlm["FitResiduals"] ;  *)
Show[ ListPlot[hist140,  PlotRange → All],
 Plot[nlm140[x], {x, 0, 800} ,  PlotRange → {{0, 800}, {0, 100}},  PlotStyle → {Thick,  Red} ]]
```

Out[84]=
```
{A0 → 53.7765, b → 31.939, a → -525.684}
```

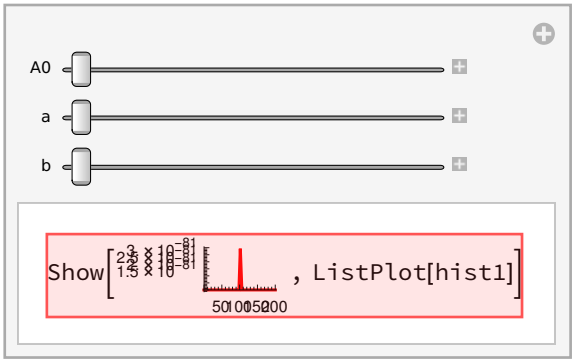
General: $\text{Exp}\left[-1.40549 \times 10^{7}\right]$ is too small to represent as a normalized machine number; precision may be lost.

Out[85]=



In[86]:=
```
Manipulate[
 Show[
  Plot[A0 * e^(-e^((-a-x)/b) + (-a-x)/b) / b, {x, 0, 200}, PlotRange -> All, PlotStyle -> Red],
  ListPlot[hist1]
 ],
 {A0, 1, 50}, {a, -100, 100}, {b, 0.01, 10}]
```

Out[86]=



General: Underflow occurred in computation.

ListPlot: hist1 is not a list of numbers or pairs of numbers.

Show: Could not combine the graphics objects in Show[, ListPlot[hist1]].