Дисперсия в расчетах

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На входе:

```
In[121]:= input220exp = Import["/Users/dns/OneDrive/Masters/SCI/FN/diby_spertion/SI_220.0011.dat",
        {"Table"}];
    input440exp = Import["/Users/dns/OneDrive/Masters/SCI/FN/diby_spertion/SI_440.0051.dat",
        {"Table"}];
    input660exp = Import["/Users/dns/OneDrive/Masters/SCI/FN/diby_spertion/SI_660.0061.dat",
        {"Table"}];
    input220theor = Import["/Users/dns/OneDrive/Masters/SCI/FN/diby_spertion/220_theor.dat",
        {"Table"}];
    input440theor = Import["/Users/dns/OneDrive/Masters/SCI/FN/diby_spertion/440_theor.dat",
        {"Table"}];
    input660theor = Import["/Users/dns/OneDrive/Masters/SCI/FN/diby_spertion/660_theor.dat",
        {"Table"}];
    input220exp[[All, 2]] = input220exp[[All, 2]] / Max[input220exp[[All, 2]]];
    input220exp[[All, 1]] = input220exp[[All, 1]] + 0.6;
    input440exp[[All, 2]] = input440exp[[All, 2]] / Max[input440exp[[All, 2]]];
    input440exp[[All, 1]] = input440exp[[All, 1]] - 1.5;
    input660exp[[All, 2]] = input660exp[[All, 2]] / Max[input660exp[[All, 2]]];
    input660exp[[All, 1]] = input660exp[[All, 1]] - 2.7;
    input220theor[[All, 2]] = input220theor[[All, 2]] / Max[input220theor[[All, 2]]];
    input440theor[[All, 2]] = input440theor[[All, 2]] / Max[input440theor[[All, 2]]];
    input660theor[[All, 2]] = input660theor[[All, 2]] / Max[input660theor[[All, 2]]];
    SetDirectory["/Users/dns/OneDrive/Masters/SCI/FN/diby_spertion/dispertion_step/"];
    input281 = Import["Itta_2_theta_8_deviation_1/2xKDO.dat", {"Table"}];
    input241 = Import["Itta_2_theta_4_deviation_1/2xKDO.dat", {"Table"}];
    input221 = Import["Itta_2_theta_2_deviation_1/2xKDO.dat", {"Table"}];
    input121 = Import["Itta_1_theta_2_deviation_1/2xKDO.dat", {"Table"}];
    input111 = Import["Itta_1_theta_1_deviation_1/2xKDO.dat", {"Table"}];
    input050505 = Import["Itta_0,5_theta_0,5_deviation_0,5/2xKDO.dat", {"Table"}];
    input010105 = Import["Itta_0,1_theta_0,1_deviation_0,5/2xKDO.dat", {"Table"}];
    input281[[All, 2]] = input281[[All, 2]] / Max[input281[[All, 2]]];
    input241[[All, 2]] = input241[[All, 2]] / Max[input241[[All, 2]]];
    input221[[All, 2]] = input221[[All, 2]] / Max[input221[[All, 2]]];
    input121[[All, 2]] = input121[[All, 2]] / Max[input121[[All, 2]]];
    input111[[All, 2]] = input111[[All, 2]] / Max[input111[[All, 2]]];
    input050505[[All, 2]] = input050505[[All, 2]] / Max[input050505[[All, 2]]];
    input010105[[All, 2]] = input010105[[All, 2]] / Max[input010105[[All, 2]]];
```

Результат (монохроматор Si[220], θ = 10.6436)

In[151]:= `{ListLinePlot[{input220exp, input220theor}, Filling→Axis,`
`    PlotLegends→{"Эксперимент", "Теория (Si[220], Θ = 10.6436)"}, PlotRange→{0, 1}, ImageSize→Medium],`
`  ListLinePlot[{input440exp, input440theor}, Filling→Axis,`
`    PlotLegends→{"Эксперимент", "Теория (Si[440], Θ = 21.679)"}, PlotRange→{0, 1}, ImageSize→Medium],`
`  ListLinePlot[{input660exp, input660theor}, Filling→Axis,`
`    PlotLegends→{"Эксперимент", "Теория (Si[660], Θ = 33.650)"}, PlotRange→{0, 1}, ImageSize→Medium]}`
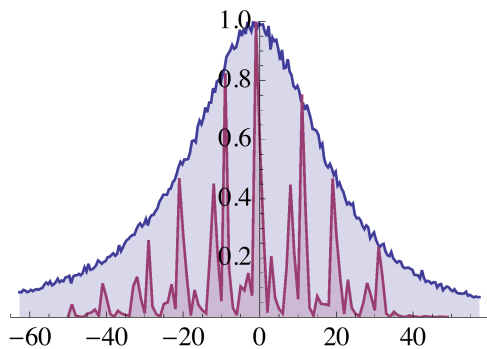
Out[151]=
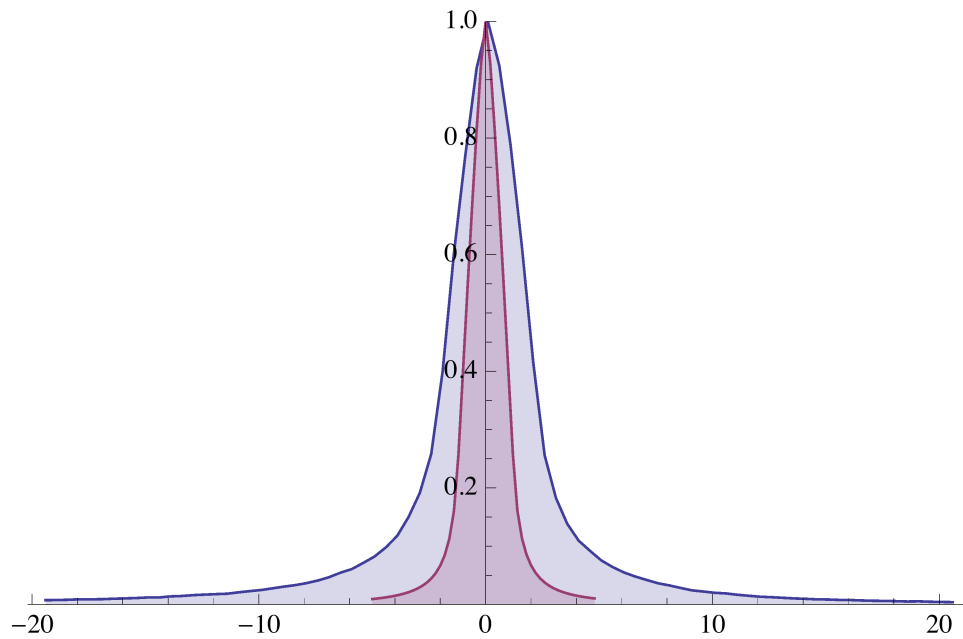
Увеличение шага в свертке

Sample - Si[440], θ = 21.679
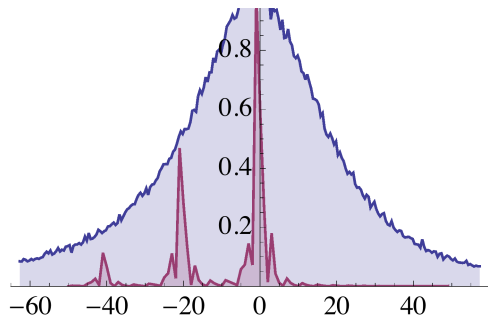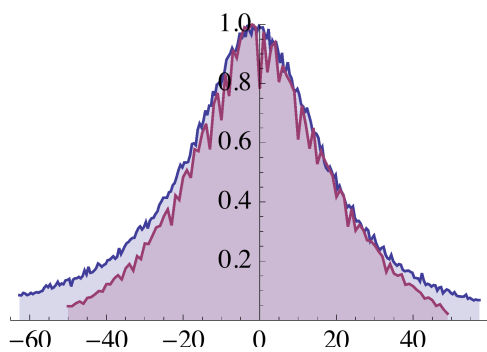
In[152]:= ```
{ListLinePlot[{input660exp, input281}, Filling → Axis,
    PlotLegends → {"Эксперимент", "Теория(∂∂=2; ∂η = 8; ∂∂=1-внешний цикл)"}, PlotRange → {0, 1}],
  ListLinePlot[{input660exp, input241}, Filling → Axis,
    PlotLegends → {"Эксперимент", "Теория(∂∂=2; ∂η = 4; ∂∂=1-внешний цикл)"}, PlotRange → {0, 1}],
  ListLinePlot[{input660exp, input221}, Filling → Axis,
    PlotLegends → {"Эксперимент", "Теория(∂∂=2; ∂η = 2; ∂∂=1-внешний цикл)"}, PlotRange → {0, 1}],
  ListLinePlot[{input660exp, input121}, Filling → Axis,
    PlotLegends → {"Эксперимент", "Теория(∂∂=1; ∂η = 2; ∂∂=1-внешний цикл)"}, PlotRange → {0, 1}],
  ListLinePlot[{input660exp, input111}, Filling → Axis,
    PlotLegends → {"Эксперимент", "Теория(∂∂=1; ∂η = 1; ∂∂=1-внешний цикл)"}, PlotRange → {0, 1}],
  ListLinePlot[{input660exp, input050505}, Filling → Axis,
    PlotLegends → {"Эксперимент", "Теория(∂∂=0.5; ∂η = 0.5; ∂∂=0.5-внешний цикл) время 10 мин"}, PlotRange → {0, 1}],
  ListLinePlot[{input660exp, input010105}, Filling → Axis,
    PlotLegends → {"Эксперимент", "Теория(∂∂=0.5; ∂η = 0.5; ∂∂=0.5-внешний цикл) время 3 часа"}, PlotRange → {0, 1}]}
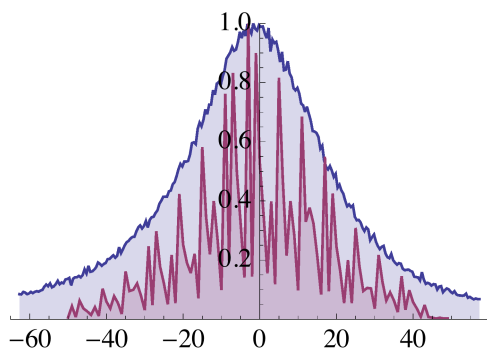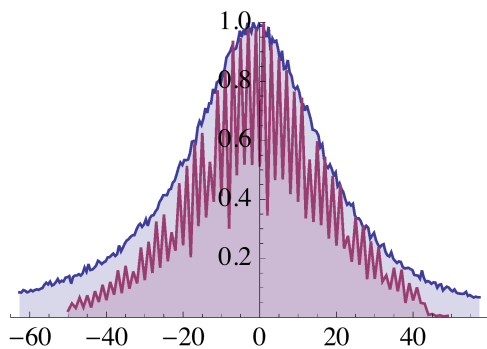```

Out[152]=

— Эксперимент

— Теория($\partial\theta$=2; $\partial\eta = 8$; $\partial\vartheta$=1−внешний цикл)

— Эксперимент

— Теория($\partial\theta$=2; $\partial\eta = 4$; $\partial\vartheta$=1−внешний цикл)

— Эксперимент

— Теория($\partial\theta$=2; $\partial\eta = 2$; $\partial\vartheta$=1−внешний цикл)

— Эксперимент

— Теория($\partial\theta$=1; $\partial\eta = 2$; $\partial\vartheta$=1−внешний цикл)

— Эксперимент

— Теория($\partial\theta$=1; $\partial\eta = 1$; $\partial\vartheta$=1−внешний цикл)