

38458.1\*((a1\*exp(((x0 - 1794.0) \* 0.000184332)))\*\*((x0 - 1794.0) \* 0.000184332)/(a2 + a4\*((x0 - 1794.0) \* 0.000184332))\*\*a3 + ((x0 - 1794.0) \* 0.000184332)))

 $a1 = 4.87518e - 05^{+8.879e - 06(18.2\%)}_{-7.891e - 06(16.2\%)},$  $a2 = 0.165504^{+0.0003305(0.2\%)}_{-0.0003301(0.199\%)},$  $\text{a3} = 1.4871^{+0.02974(2.0\%)}_{-0.03207(2.16\%)}, \ \text{a4} = 1.39777^{+0.2346(16.8\%)}_{-0.2273(16.3\%)}$ Candidate #16  $\chi^2/NDF = 28.17/25$ , RMSE = 276.5, R2 = 1.0 Best-fit 10<sup>5</sup> ---- a1 Up  $(+1\sigma)$ a1 Down  $(-1\sigma)$ Data  $10^{4}$  $10^{3}$  $10^{2}$  $10^{1}$ 10<sup>0</sup>  $10^{-1}$ 2 Data – Fit Uncertainty 0 -2 1.1 1 0.9  $2 \times 10^{3}$  $3 \times 10^3$  $4 \times 10^{3}$  $6 \times 10^{3}$ 

38458.1\*((a1\*exp(((x0 - 1794.0) \* 0.000184332)))\*\*((x0 - 1794.0) \* 0.000184332)/(a2 + a4\*((x0 - 1794.0) \* 0.000184332))\*\*a3 + ((x0 - 1794.0) \* 0.000184332))) $a1 = 4.87518e - 05^{+8.879e}_{-7.891e} {}^{-06(18.2\%)}_{-06(16.2\%)}, \quad \textbf{a2} = \textbf{0.165504}^{+\textbf{0.0003305(0.2\%)}}_{-\textbf{0.0003301(0.199\%)}},$  $\text{a3} = 1.4871^{+0.02974(2.0\%)}_{-0.03207(2.16\%)}, \ \text{a4} = 1.39777^{+0.2346(16.8\%)}_{-0.2273(16.3\%)}$ Candidate #16  $\chi^2/NDF = 28.17/25$ , RMSE = 276.5, R2 = 1.0 Best-fit 10<sup>5</sup> ---- a2 Up  $(+1\sigma)$ a2 Down  $(-1\sigma)$ Data  $10^{4}$  $10^{3}$  $10^{2}$  $10^{1}$ 10<sup>0</sup>  $10^{-1}$ 2 Data – Fit Uncertainty 0 -2 1

 $4 \times 10^{3}$ 

 $6 \times 10^{3}$ 

 $3 \times 10^3$ 

0.998

 $2 \times 10^{3}$ 

38458.1\*((a1\*exp(((x0 - 1794.0) \* 0.000184332)))\*\*((x0 - 1794.0) \* 0.000184332)/(a2 + a4\*((x0 - 1794.0) \* 0.000184332)\*\*a3 + ((x0 - 1794.0) \* 0.000184332)))

 $3 \times 10^3$ 

 $2 \times 10^3$ 

 $a1 = 4.87518e - 05^{+8.879e - 06(18.2\%)}_{-7.891e - 06(16.2\%)}, \quad a2 = 0.165504^{+0.0003305(0.2\%)}_{-0.0003301(0.199\%)},$ **a3 = 1.4871** $_{-0.03207(2.16\%)}^{+0.02974(2.0\%)}$ , a4 = 1.39777 $_{-0.2273(16.3\%)}^{+0.2346(16.8\%)}$ Candidate #16  $\chi^2/NDF = 28.17/25$ , RMSE = 276.5, R2 = 1.0 Best-fit  $10^{5}$ ---- a3 Up  $(+1\sigma)$ a3 Down  $(-1\sigma)$ Data  $10^{4}$  $10^{3}$  $10^{2}$  $10^{1}$  $10^{0}$  $10^{-1}$ 2 Data – Fit Uncertainty 0 -2 1.01 1 0.99

 $4 \times 10^3$ 

 $6 \times 10^3$ 

38458.1\*((a1\*exp(((x0 - 1794.0) \* 0.000184332))))\*\*((x0 - 1794.0) \* 0.000184332)/(a2 + a4\*((x0 - 1794.0) \* 0.000184332)))))1794.0) \* 0.000184332)\*\*a3 + ((x0 - 1794.0) \* 0.000184332)))  $a1 = 4.87518e - 05^{+8.879e - 06(18.2\%)}_{-7.891e - 06(16.2\%)}, \quad a2 = 0.165504^{+0.0003305(0.2\%)}_{-0.0003301(0.199\%)},$  $\text{a3} = 1.4871^{+0.02974(2.0\%)}_{-0.03207(2.16\%)}, \ \ \textbf{a4} = \textbf{1.39777}^{+0.2346(16.8\%)}_{-0.2273(16.3\%)}$ Candidate #16  $\chi^2/NDF = 28.17/25$ , RMSE = 276.5, R2 = 1.0 Best-fit 10<sup>5</sup> ---- a4 Up  $(+1\sigma)$ a4 Down  $(-1\sigma)$ Data  $10^{4}$  $10^{3}$  $10^{2}$  $10^{1}$ 10<sup>0</sup>  $10^{-1}$ 2 Data – Fit Uncertainty 0 -2 1.1 1.05 1

 $4 \times 10^{3}$ 

 $6 \times 10^{3}$ 

 $3 \times 10^3$ 

0.95

 $2 \times 10^{3}$ 

Candidate function #15

38458.1\*(a1\*\*((x0 - 1794.0) \* 0.000184332)/(a2 + tanh(a4\*((x0 - 1794.0) \* 0.000184332)\*\*a3 + ((x0 - 1794.0) \* 0.000184332))))

 $a1 = 5.02549e - 05^{+5.024e - 06(10.0\%)}_{-4.831e - 06(9.61\%)}$ ,  $a2 = 0.165475^{+0.0003124(0.189\%)}_{-0.0003127(0.189\%)}$  $\text{a3} = 1.45654^{+0.03075(2.11\%)}_{-0.03172(2.18\%)}\text{, } \text{a4} = 1.2695^{+0.1509(11.9\%)}_{-0.1476(11.6\%)}$ Candidate #15  $\chi^2/NDF = 27.52/25$ , RMSE = 279.3, R2 = 1.0 Best-fit 10<sup>5</sup> ---- a1 Up  $(+1\sigma)$ a1 Down  $(-1\sigma)$ Data  $10^{4}$  $10^{3}$  $10^{2}$  $10^{1}$ 10<sup>0</sup>  $10^{-1}$ 2 Data – Fit Uncertainty 0 -2 1.1 1 0.9

 $4 \times 10^{3}$ 

 $6 \times 10^3$ 

 $3 \times 10^3$ 

 $2 \times 10^{3}$ 

```
38458.1*(a1**((x0 - 1794.0) * 0.000184332)/(a2 + tanh(a4*((x0 - 1794.0) * 0.000184332)**a3 + (a1**((x0 - 1794.0) * 0.000184332)**a3) + (a1**((x0 - 1794.0) * 0.00018432)**a3) + (a1**((x0 - 1794.0) * 0.00018432)**a3) + (a1**((x0 - 1794.0) * 0.000184332)**a3) + (a1**((x0 - 1794.0) * 0.00018432)**a3) + (a1**((x0 - 1794.0) * 0.00018432)**a3) + (a1**((x0 - 1794.0) * 0.00018432)**a3) + (a1**((x0 - 1794.0) * 0.0001842)**a3) + (a1**((x0 - 1794.0) * 0.00
                                ((x0 - 1794.0) * 0.000184332))))
                                a1 = 5.02549e - 05^{+5.024e - 06(10.0\%)}_{-4.831e - 06(9.61\%)}, a2 = 0.165475^{+0.0003124(0.189\%)}_{-0.0003127(0.189\%)}
                                \text{a3} = 1.45654^{+0.03075(2.11\%)}_{-0.03172(2.18\%)}, \quad \text{a4} = 1.2695^{+0.1509(11.9\%)}_{-0.1476(11.6\%)}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Candidate #15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \chi^2/NDF = 27.52/25, RMSE = 279.3, R2 = 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best-fit
10^{5}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ---- a2 Up (+1\sigma)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a2 Down (-1\sigma)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Data
10^{4}
10^{3}
10^{2}
10^{1}
10<sup>0</sup>
                2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Data – Fit
Uncertainty
              0
          -2
                1
               1
```

 $4 \times 10^{3}$ 

 $6 \times 10^{3}$ 

 $3 \times 10^3$ 

 $10^{-1}$ 

0.998

 $2 \times 10^3$ 

38458.1\*(a1\*\*((x0 - 1794.0) \* 0.000184332)/(a2 + tanh(a4\*((x0 - 1794.0) \* 0.000184332)\*\*a3 + (a1\*\*((x0 - 1794.0) \* 0.000184332)\*\*\*a3 + (a1\*\*((x0 - 1794.0) \* 0.000184332)\*\*\*a3 + (a1\*\*((x0 - 1794.0) \* 0.00018432)\*\*\*a3 + (a1\*\*((x0 - 1794.0) \* 0.00018432)\*\*\*a3 + (a1\*\*((x0 - 1794.0) \* 0.00018432)\*\*\*a3 + (a1\*\*((x0 - 1794.0) \* 0.0001842)\*\*\*a3 + (a1\*\*((x0 - 1794.0) \* 0

 $3 \times 10^3$ 

 $2 \times 10^3$ 

((x0 - 1794.0) \* 0.000184332)))) $a1 = 5.02549e - 05^{+5.024e - 06(10.0\%)}_{-4.831e - 06(9.61\%)},$  $a2 = 0.165475^{+0.0003124(0.189\%)}_{-0.0003127(0.189\%)},$ **a3 = 1.45654**<sup>+0.03075(2.11%)</sup><sub>-0.03172(2.18%)</sub>, a4 = 1.2695<sup>+0.1509(11.9%)</sup><sub>-0.1476(11.6%)</sub> Candidate #15  $\chi^2/NDF = 27.52/25$ , RMSE = 279.3, R2 = 1.0 Best-fit  $10^{5}$ ---- a3 Up  $(+1\sigma)$ a3 Down  $(-1\sigma)$ Data  $10^{4}$  $10^{3}$  $10^{2}$  $10^{1}$ 10<sup>0</sup>  $10^{-1}$ 2 Data – Fit Uncertainty 0 -2 1.01 1 0.99

 $4 \times 10^3$ 

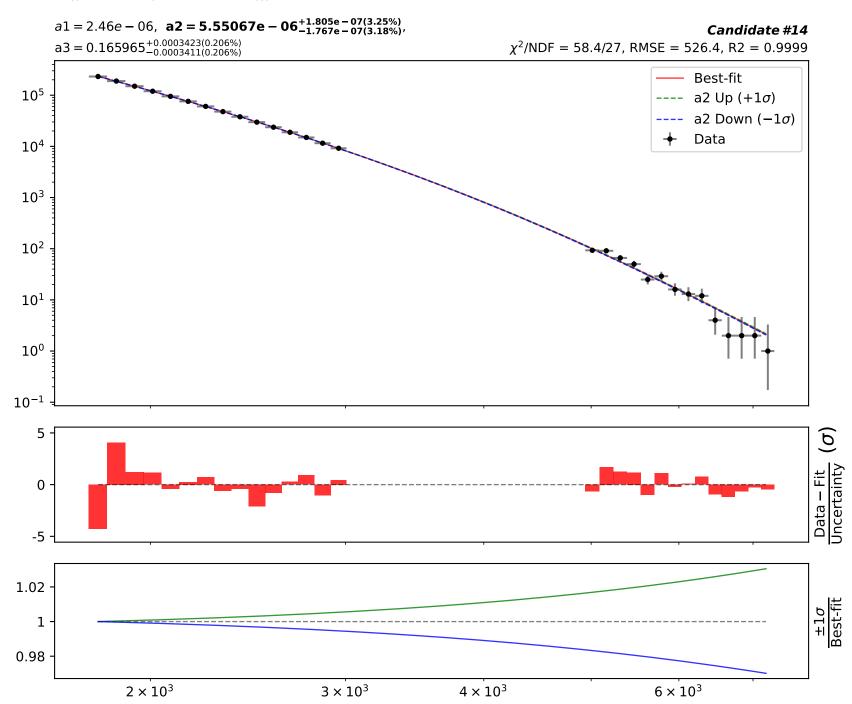
 $6 \times 10^3$ 

38458.1\*(a1\*\*((x0 - 1794.0) \* 0.000184332)/(a2 + tanh(a4\*((x0 - 1794.0) \* 0.000184332)\*\*a3 + ((x0 - 1794.0) \* 0.000184332))))

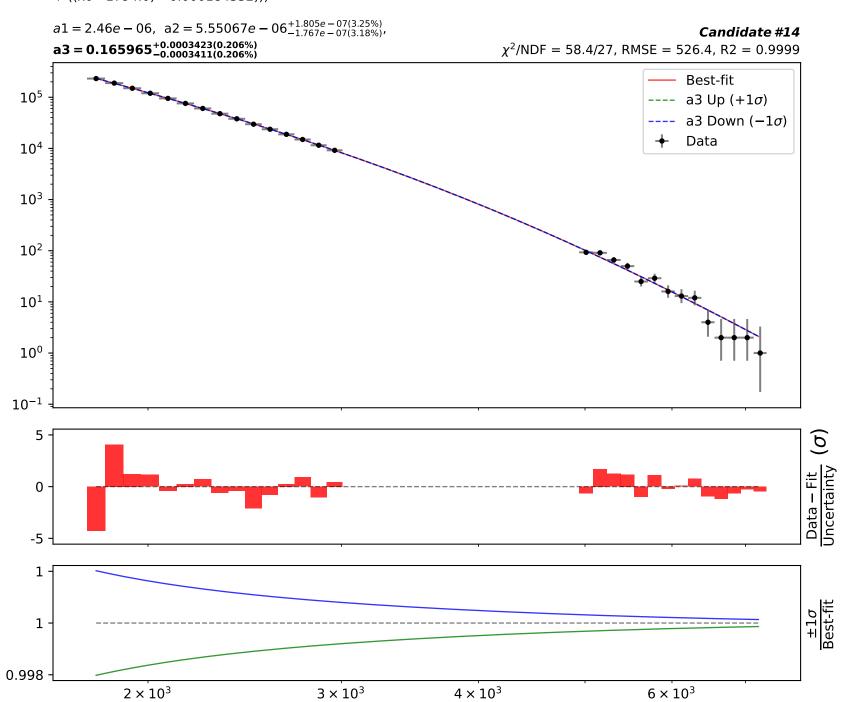
 $a1 = 5.02549e - 05^{+5.024e - 06(10.0\%)}_{-4.831e - 06(9.61\%)},$  $a2 = 0.165475^{+0.0003124(0.189\%)}_{-0.0003127(0.189\%)},$ a3 =  $1.45654^{+0.03075(2.11\%)}_{-0.03172(2.18\%)}$ , a4 =  $1.2695^{+0.1509(11.9\%)}_{-0.1476(11.6\%)}$ Candidate #15  $\chi^2/NDF = 27.52/25$ , RMSE = 279.3, R2 = 1.0 Best-fit  $10^{5}$ a4 Up  $(+1\sigma)$ a4 Down  $(-1\sigma)$ Data  $10^{4}$  $10^{3}$  $10^{2}$  $10^{1}$ 10<sup>0</sup>  $10^{-1}$ 2 Data – Fit Uncertainty 0 -2 1.02 1 0.98  $2 \times 10^3$  $3 \times 10^3$  $4 \times 10^3$  $6 \times 10^3$ 

Candidate function #14

38458.1\*((a1 + a2\*exp(2\*((x0 - 1794.0) \* 0.000184332)))\*\*((x0 - 1794.0) \* 0.000184332))/tanh(a3 + ((x0 - 1794.0) \* 0.000184332)))

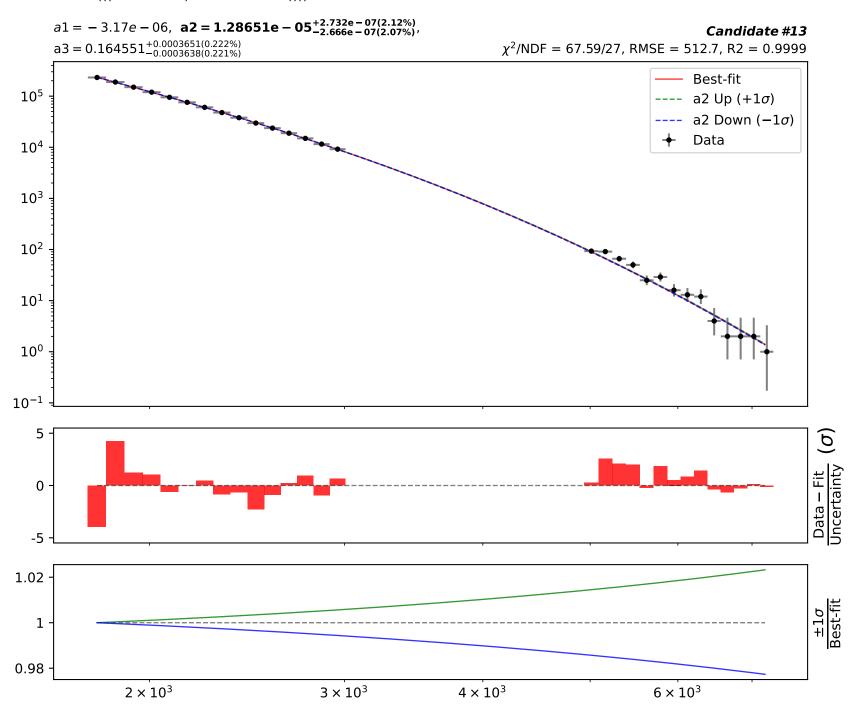


38458.1\*((a1 + a2\*exp(2\*((x0 - 1794.0) \* 0.000184332)))\*\*((x0 - 1794.0) \* 0.000184332))/tanh(a3 + ((x0 - 1794.0) \* 0.000184332)))

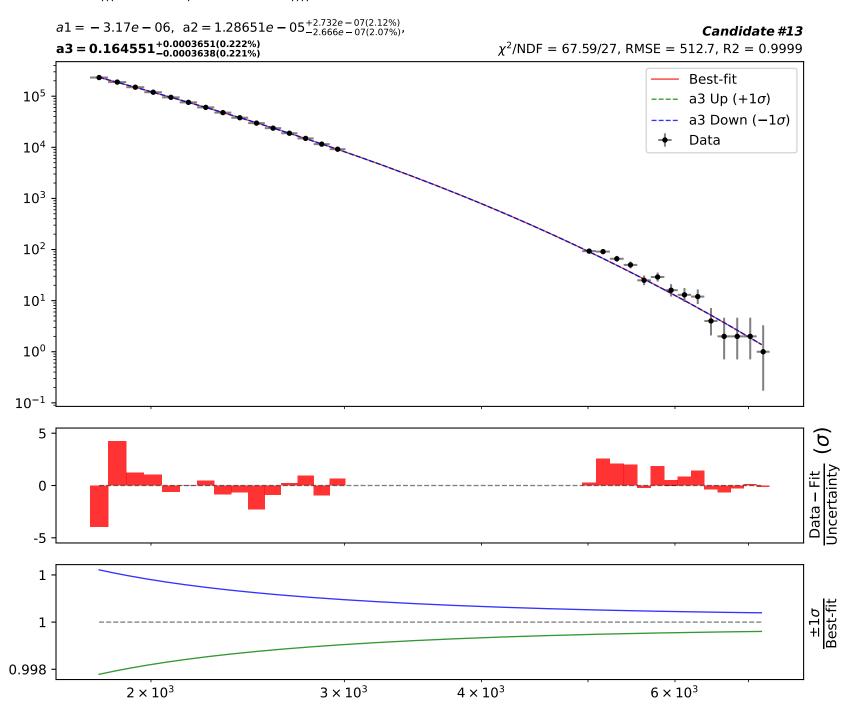




38458.1\*((a1 + a2\*exp(((x0 - 1794.0) \* 0.000184332)))\*\*(a2 + ((x0 - 1794.0) \* 0.000184332)))(a3 + tanh(((x0 - 1794.0) \* 0.000184332))))

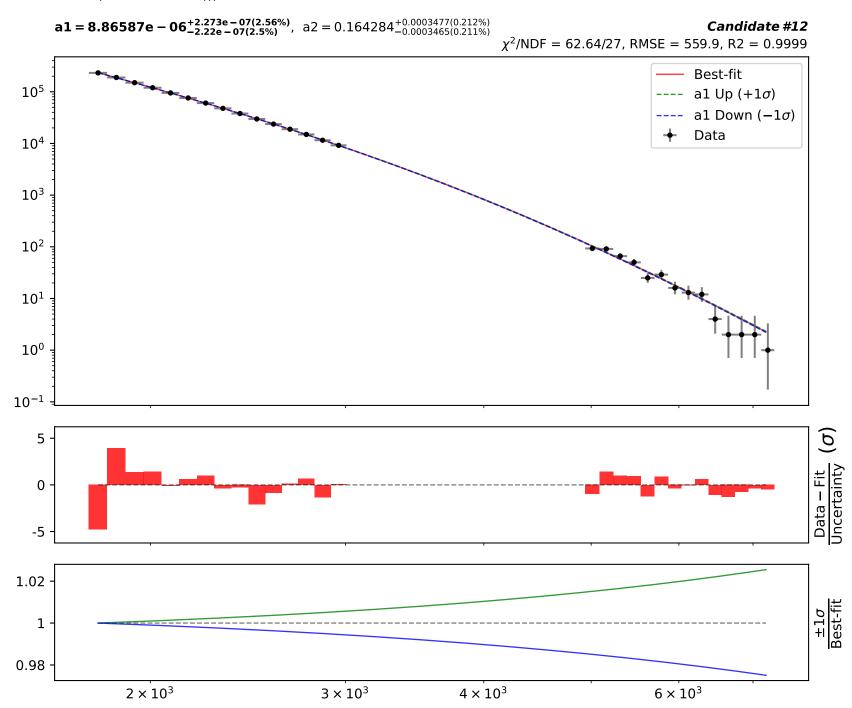


38458.1\*((a1 + a2\*exp(((x0 - 1794.0) \* 0.000184332)))\*\*(a2 + ((x0 - 1794.0) \* 0.000184332)))(a3 + tanh(((x0 - 1794.0) \* 0.000184332))))

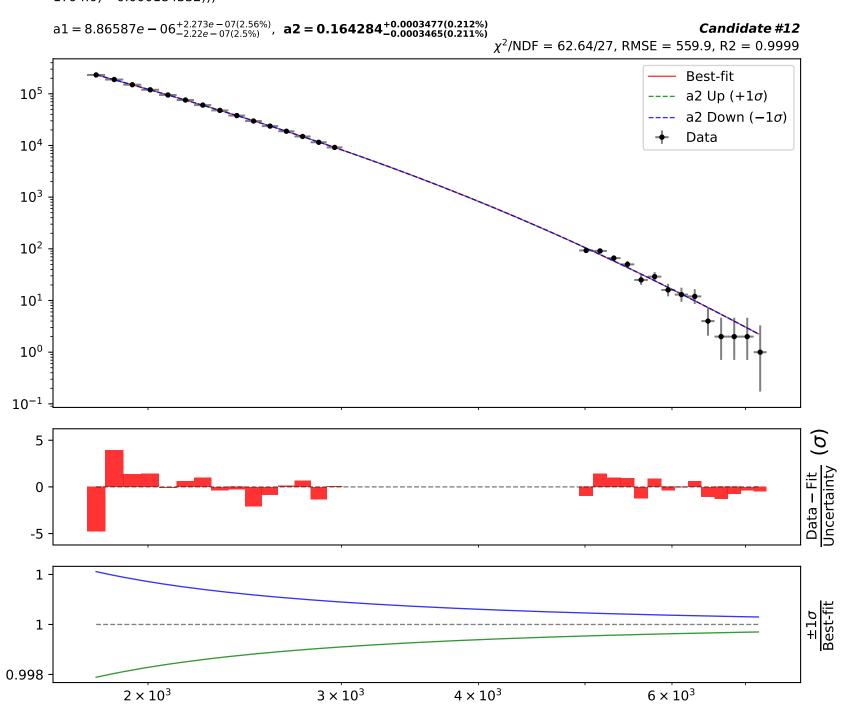


Candidate function #12

38458.1\*((a1\*exp(2\*((x0 - 1794.0) \* 0.000184332)))\*\*((x0 - 1794.0) \* 0.000184332)/(a2 + ((x0 - 1794.0) \* 0.000184332)))

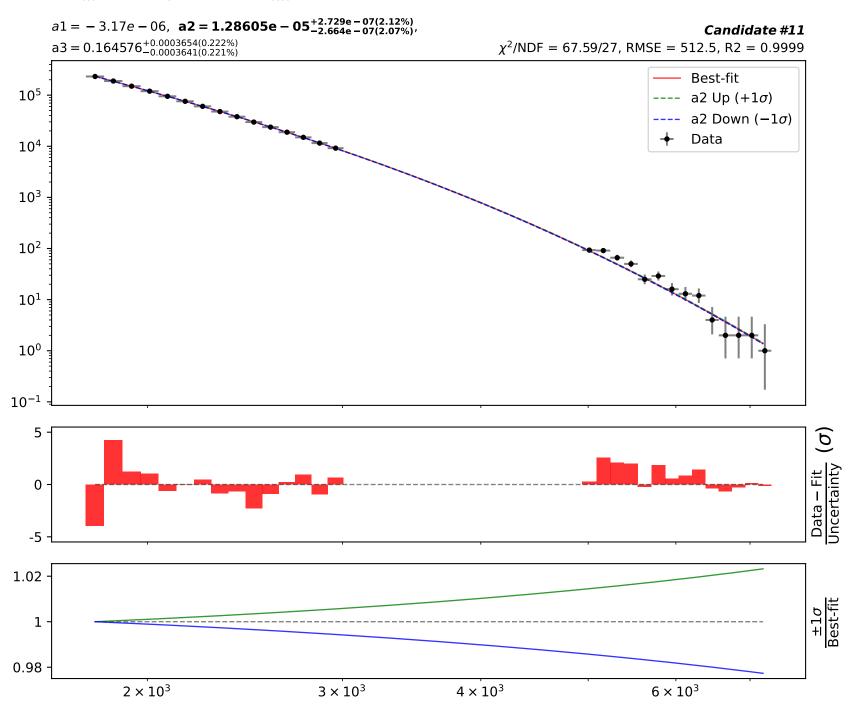


38458.1\*((a1\*exp(2\*((x0 - 1794.0) \* 0.000184332)))\*\*((x0 - 1794.0) \* 0.000184332)/(a2 + ((x0 - 1794.0) \* 0.000184332)))

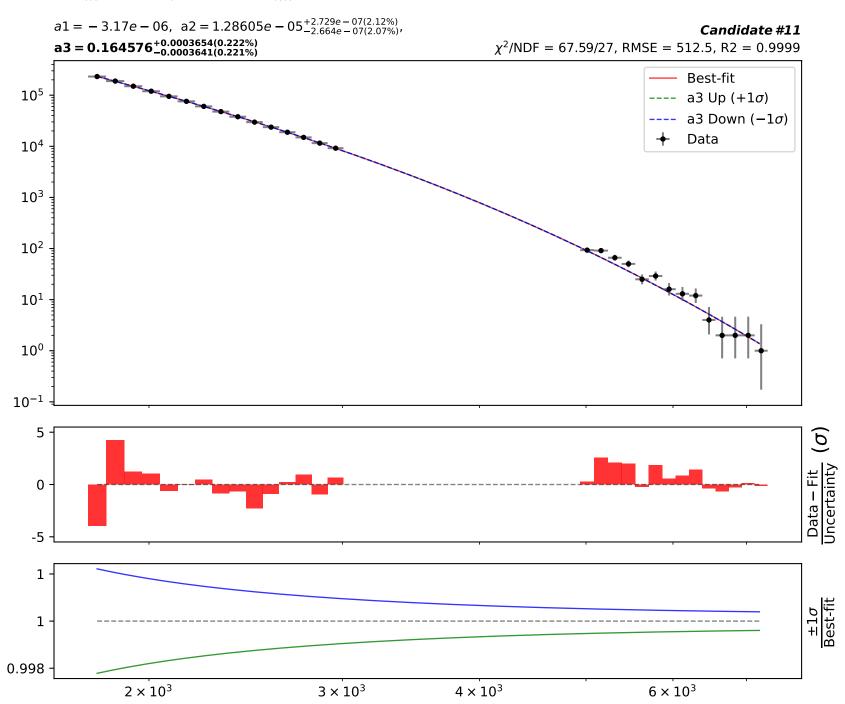




38458.1\*((a1 + a2\*exp(((x0 - 1794.0) \* 0.000184332))))\*\*((x0 - 1794.0) \* 0.000184332)/(a3 + tanh(((x0 - 1794.0) \* 0.000184332))))

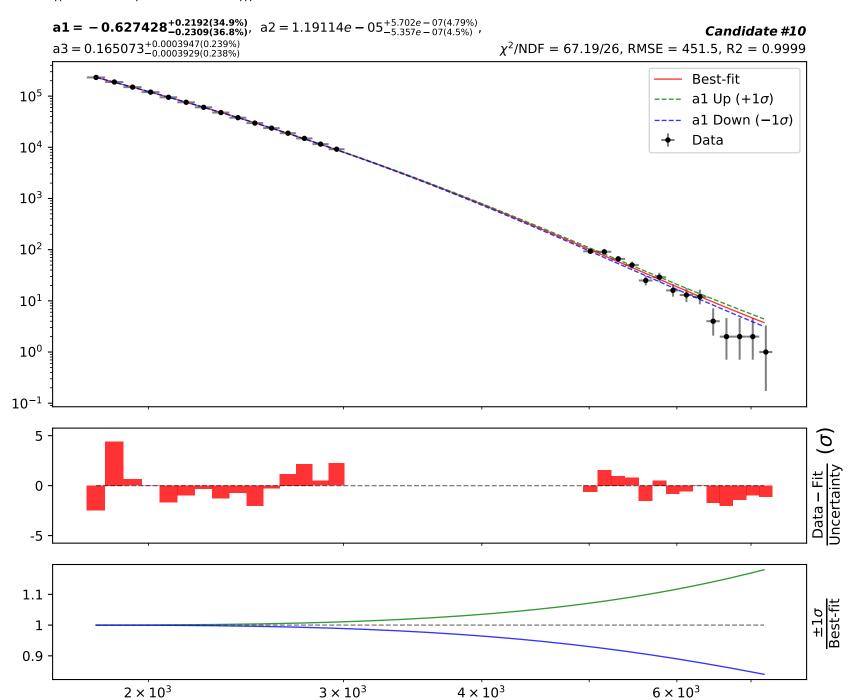


38458.1\*((a1 + a2\*exp(((x0 - 1794.0) \* 0.000184332))))\*\*((x0 - 1794.0) \* 0.000184332)/(a3 + tanh(((x0 - 1794.0) \* 0.000184332))))

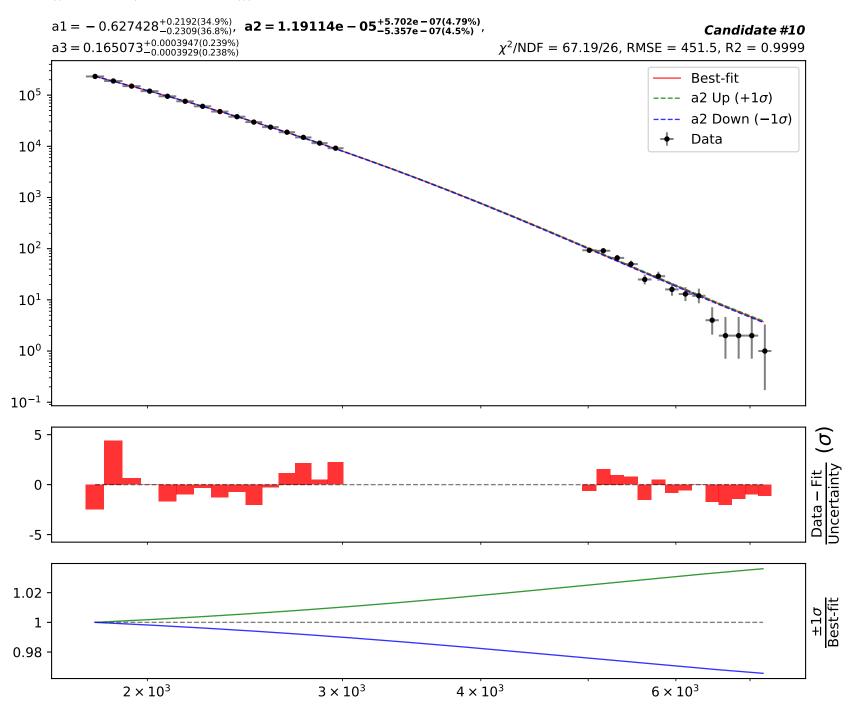




38458.1\*((a2\*exp(a1\*((x0 - 1794.0) \* 0.000184332)))\*\*tanh(((x0 - 1794.0) \* 0.000184332)))(a3 + ((x0 - 1794.0) \* 0.000184332)))



38458.1\*((a2\*exp(a1\*((x0 - 1794.0) \* 0.000184332)))\*\*tanh(((x0 - 1794.0) \* 0.000184332)))/(a3 + ((x0 - 1794.0) \* 0.000184332)))

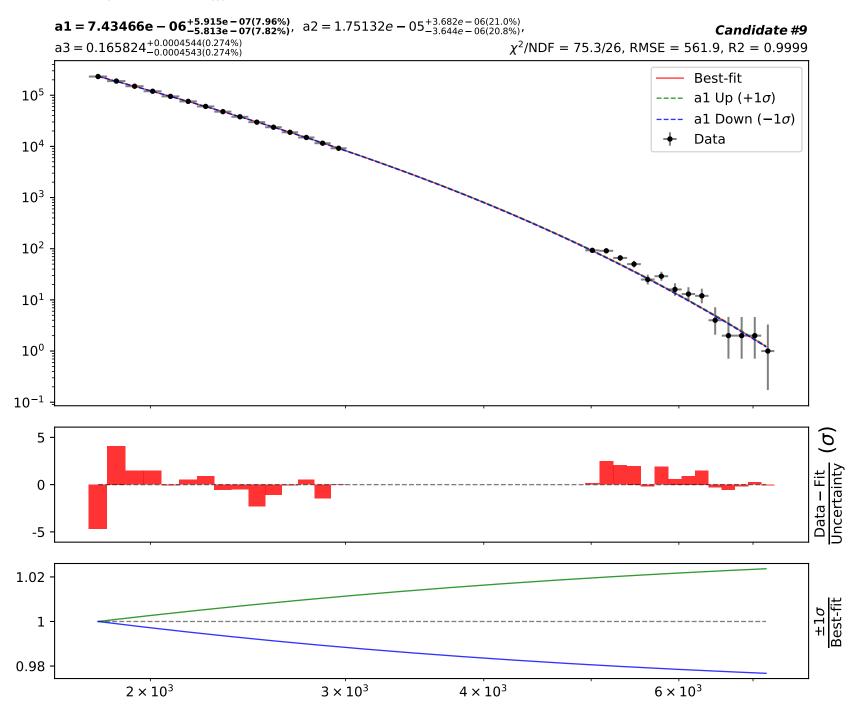


38458.1\*((a2\*exp(a1\*((x0 - 1794.0) \* 0.000184332)))\*\*tanh(((x0 - 1794.0) \* 0.000184332))/(a3 + ((x0 - 1794.0) \* 0.000184332)))

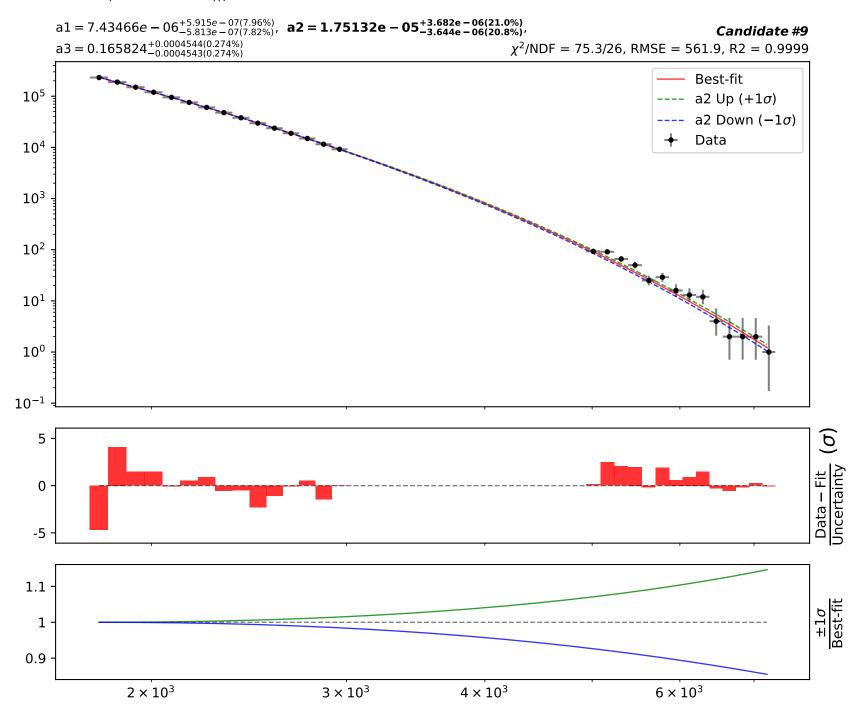




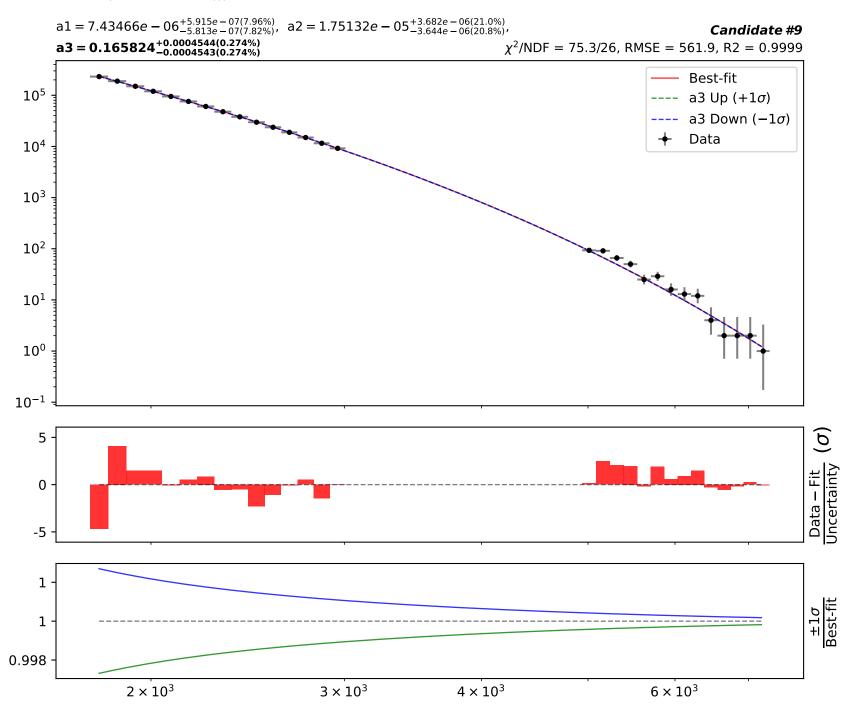
38458.1\*((a1 + a2\*((x0 - 1794.0) \* 0.000184332))\*\*((x0 - 1794.0) \* 0.000184332)/tanh(a3 + ((x0 - 1794.0) \* 0.000184332)))



38458.1\*((a1 + a2\*((x0 - 1794.0) \* 0.000184332))\*\*((x0 - 1794.0) \* 0.000184332)/tanh(a3 + ((x0 - 1794.0) \* 0.000184332)))

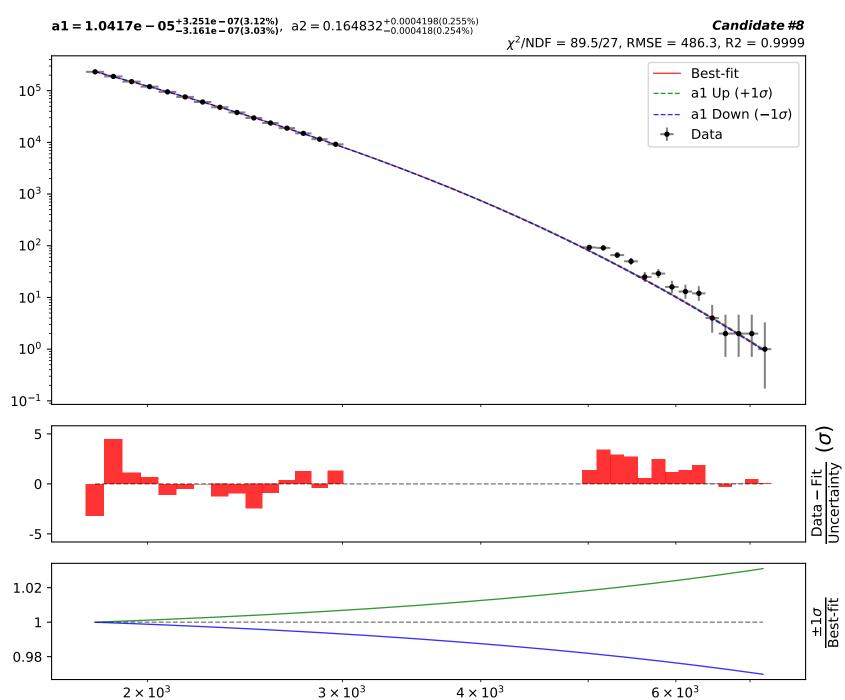


38458.1\*((a1 + a2\*((x0 - 1794.0) \* 0.000184332))\*\*((x0 - 1794.0) \* 0.000184332)/tanh(a3 + ((x0 - 1794.0) \* 0.000184332)))





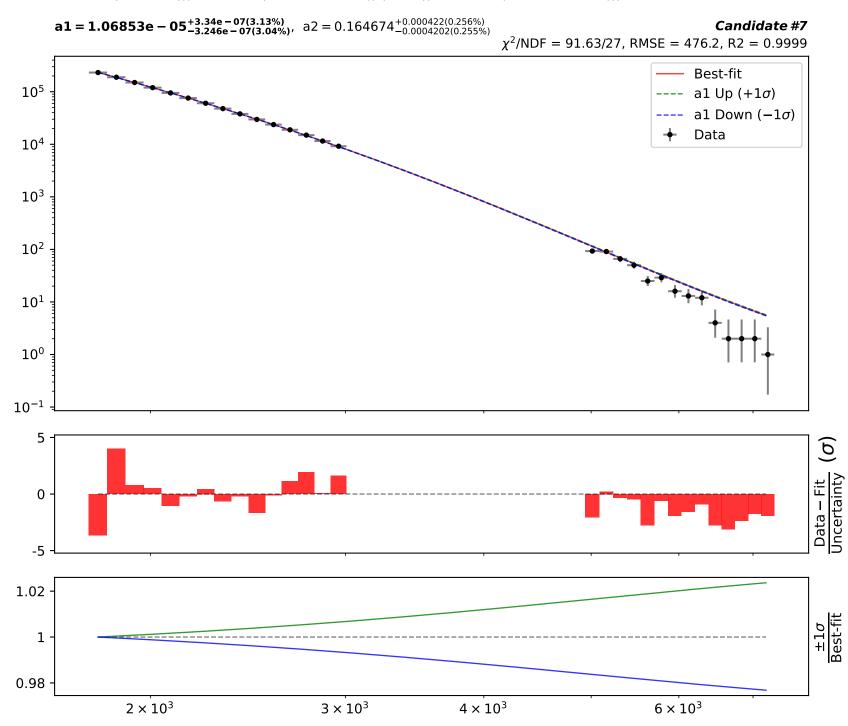
38458.1\*((a1\*exp(((x0 - 1794.0) \* 0.000184332)))\*\*((x0 - 1794.0) \* 0.000184332)/(a2 + ((x0 - 1794.0) \* 0.000184332)))

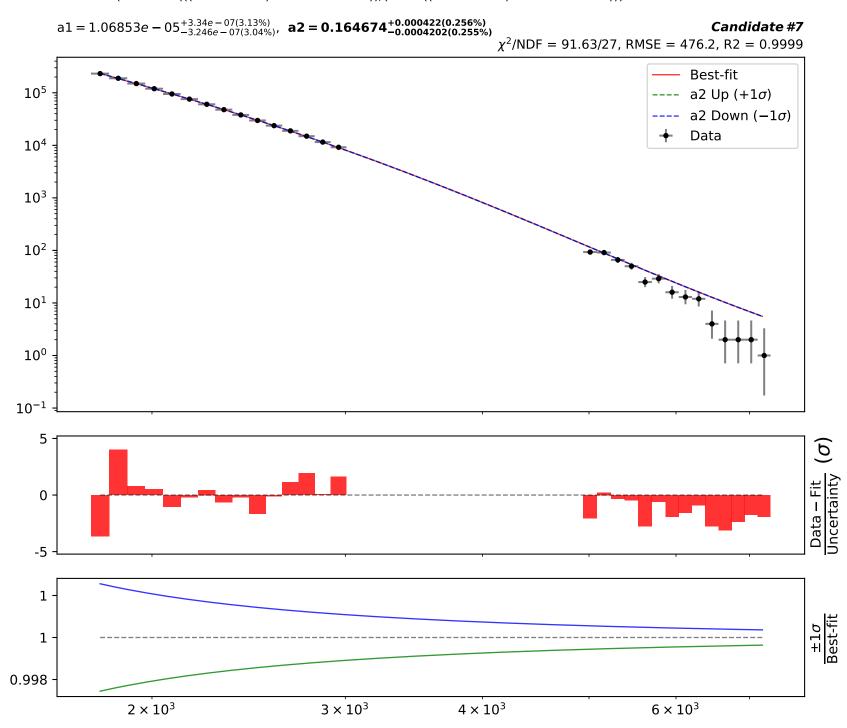


38458.1\*((a1\*exp(((x0 - 1794.0) \* 0.000184332)))\*\*((x0 - 1794.0) \* 0.000184332)/(a2 + ((x0 - 1794.0) \* 0.000184332)))

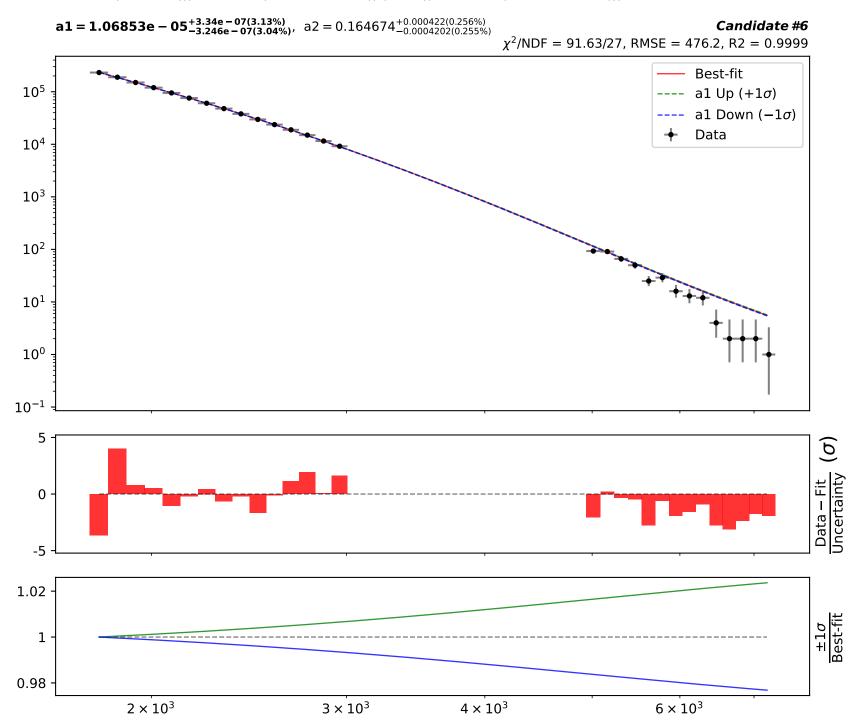


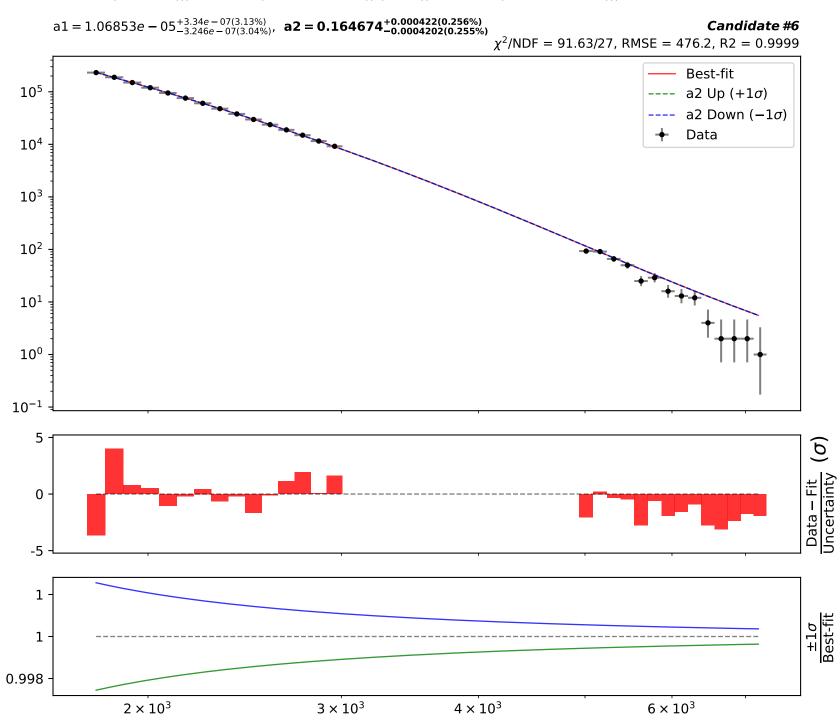




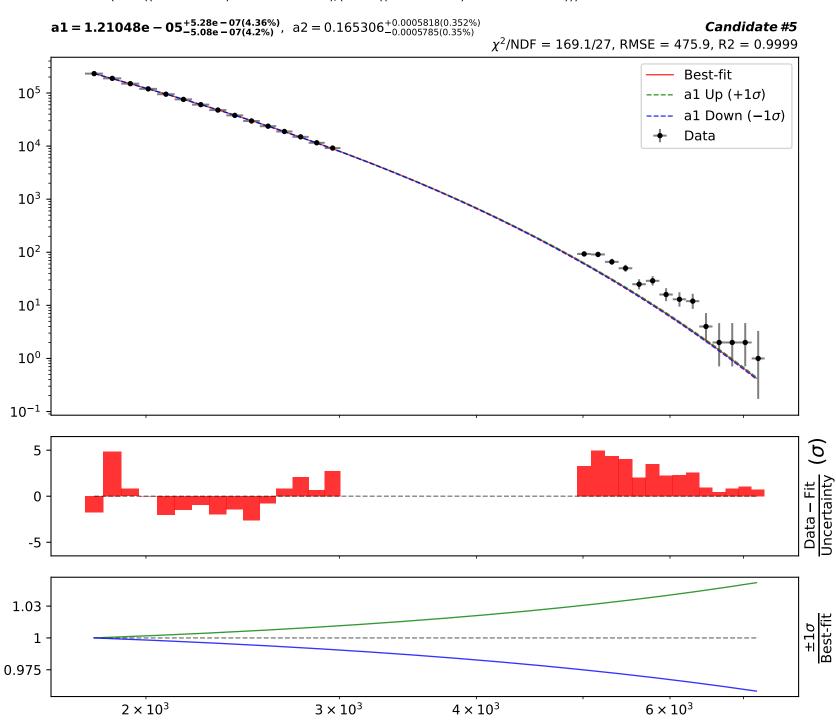


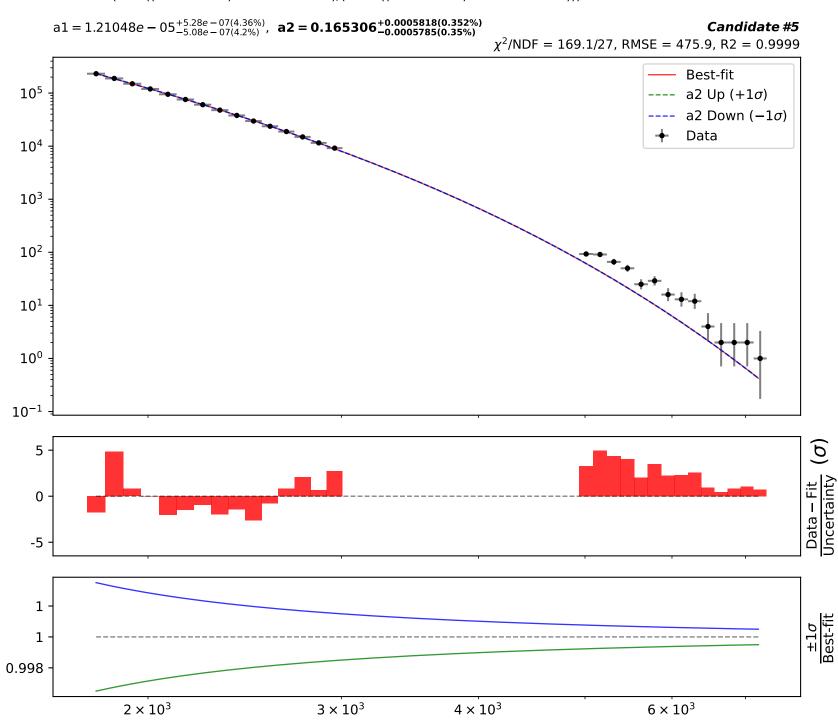










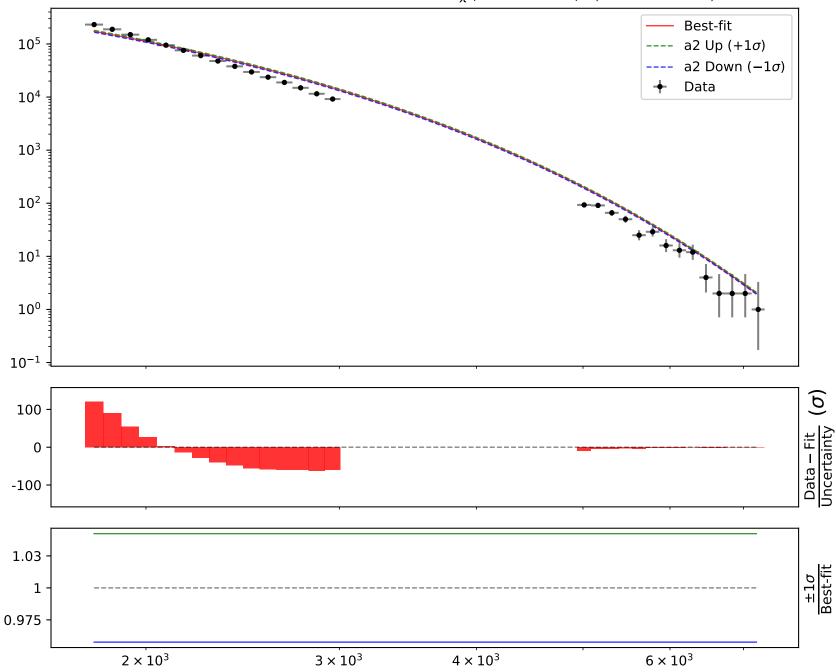


Candidate function #4

a1 = 1.1e - 05,  $a2 = 4.50697^{+0.191(4.24\%)}_{-0.191(4.24\%)}$ 

## Candidate #4

 $\chi^2$ /NDF = 53420.0/28, RMSE = 14510.0, R2 = 0.9432





a1 = 1.1e - 05,  $a2 = 4.50697^{+0.191(4.24\%)}_{-0.191(4.24\%)}$ 

Candidate #3



