Candidate function #14

```
SymbolFit
       1.0*((a2 + a3*tanh(a4*((x0 - 1568.5) * 0.000145275)))**(a1 + a5*((x0 - 1568.5) * 0.000145275)))
       a1 = -1.1776^{+0.06(5.1\%)}_{-0.06(5.1\%)}, a2 = 0.0142497^{+0.00309(21.7\%)}_{-0.00309(21.7\%)},
       \text{a3} = 0.0404802^{+0.00381(9.41\%)}_{-0.00381(9.41\%)}, \ \text{a4} = 2.04204^{+0.165(8.08\%)}_{-0.165(8.08\%)},
                                                                                                                                   Candidate #14
       a5 = 4.93839^{+0.25(5.06\%)}_{-0.25(5.06\%)}
                                                                                               \chi^2/NDF = 36.1/37, RMSE = 0.02235, R2 = 1.0
              Best-fit
 10<sup>2</sup>
                                                                                                                                al Up (+1\sigma)
                                                                                                                                al Down (-1\sigma)
 10^{1}
                                                                                                                                Data
 10<sup>0</sup>
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
    2
                                                                                                                                                       Data – Fit
Uncertainty
    0
   -2
  1.2
    1
  8.0
                             2 \times 10^{3}
                                                                                                               6 \times 10^3
```

 3×10^{3}

```
1.0*((a2 + a3*tanh(a4*((x0 - 1568.5) * 0.000145275)))**(a1 + a5*((x0 - 1568.5) * 0.000145275)))
         \mathtt{a1} = -1.1776^{+0.06(5.1\%)}_{-0.06(5.1\%)}, \ \ \mathbf{a2} = \mathbf{0.0142497}^{+0.00309(21.7\%)}_{-0.00309(21.7\%)},
         \text{a3} = 0.0404802^{+0.00381(9.41\%)}_{-0.00381(9.41\%)}, \ \text{a4} = 2.04204^{+0.165(8.08\%)}_{-0.165(8.08\%)},
                                                                                                                                                                   Candidate #14
         a5 = 4.93839^{+0.25(5.06\%)}_{-0.25(5.06\%)}
                                                                                                                      \chi^2/NDF = 36.1/37, RMSE = 0.02235, R2 = 1.0
                                                                                                                                                                Best-fit
  10^{2}
                                                                                                                                                                a2 Up (+1\sigma)
                                                                                                                                                                a2 Down (-1\sigma)
  10^{1}
                                                                                                                                                                Data
 10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
     2
                                                                                                                                                                                            Data – Fit
Uncertainty
     0
    -2
  1.2
     1
  8.0
                                    2 \times 10^{3}
                                                                                                                                          6 \times 10^3
                                                                          3 \times 10^3
                                                                                                     4 \times 10^3
```

```
1.0*((a2 + a3*tanh(a4*((x0 - 1568.5) * 0.000145275)))**(a1 + a5*((x0 - 1568.5) * 0.000145275)))
         \text{a1} = -1.1776^{+0.06(5.1\%)}_{-0.06(5.1\%)}, \ \text{a2} = 0.0142497^{+0.00309(21.7\%)}_{-0.00309(21.7\%)},
         \mathbf{a3} = \mathbf{0.0404802}^{+0.00381(9.41\%)}_{-0.00381(9.41\%)}, \quad \mathbf{a4} = 2.04204^{+0.165(8.08\%)}_{-0.165(8.08\%)},
                                                                                                                                                                    Candidate #14
         a5 = 4.93839^{+0.25(5.06\%)}_{-0.25(5.06\%)}
                                                                                                                       \chi^2/NDF = 36.1/37, RMSE = 0.02235, R2 = 1.0
                                                                                                                                                                 Best-fit
  10^{2}
                                                                                                                                                                 a3 Up (+1\sigma)
                                                                                                                                                                 a3 Down (-1\sigma)
  10^{1}
                                                                                                                                                                 Data
  10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
     2
                                                                                                                                                                                             Data – Fit
Uncertainty
     0
    -2
  1.2
     1
  0.8
                                     2 \times 10^{3}
                                                                                                                                           6 \times 10^3
                                                                          3 \times 10^{3}
                                                                                                     4 \times 10^3
```

```
1.0*((a2 + a3*tanh(a4*((x0 - 1568.5) * 0.000145275)))**(a1 + a5*((x0 - 1568.5) * 0.000145275)))
                                               a2 = 0.0142497^{+0.00309(21.7\%)}_{-0.00309(21.7\%)},
           a1 = -1.1776^{+0.06(5.1\%)}_{-0.06(5.1\%)},
           \text{a3} = 0.0404802^{+0.00381(9.41\%)}_{-0.00381(9.41\%)}, \quad \textbf{a4} = \textbf{2.04204}^{+0.165(8.08\%)}_{-0.165(8.08\%)},
                                                                                                                                                                Candidate #14
          a5 = 4.93839^{+0.25(5.06\%)}_{-0.25(5.06\%)}
                                                                                                                    \chi^2/NDF = 36.1/37, RMSE = 0.02235, R2 = 1.0
                                                                                                                                                             Best-fit
   10^{2}
                                                                                                                                                            a4 Up (+1\sigma)
                                                                                                                                                            a4 Down (-1\sigma)
   10^{1}
                                                                                                                                                            Data
   10<sup>0</sup>
 10^{-1}
 10^{-2}
 10^{-3}
 10^{-4}
 10^{-5}
       2
                                                                                                                                                                                        Data – Fit
Uncertainty
      0
     -2
  1.03
       1
0.975
  0.95
                                     2 \times 10^3
                                                                         3 \times 10^3
                                                                                                   4 \times 10^{3}
                                                                                                                                       6 \times 10^{3}
```

```
1.0*((a2 + a3*tanh(a4*((x0 - 1568.5) * 0.000145275)))**(a1 + a5*((x0 - 1568.5) * 0.000145275)))
         a1 = -1.1776^{+0.06(5.1\%)}_{-0.06(5.1\%)}, \ a2 = 0.0142497^{+0.00309(21.7\%)}_{-0.00309(21.7\%)},
         \text{a3} = 0.0404802^{+0.00381(9.41\%)}_{-0.00381(9.41\%)}, \ \text{a4} = 2.04204^{+0.165(8.08\%)}_{-0.165(8.08\%)},
                                                                                                                                                                   Candidate #14
         \mathbf{a5} = \mathbf{4.93839}^{+0.25(5.06\%)}_{-0.25(5.06\%)}
                                                                                                                      \chi^2/NDF = 36.1/37, RMSE = 0.02235, R2 = 1.0
                                                                                                                                                                Best-fit
  10^{2}
                                                                                                                                                                a5 Up (+1\sigma)
                                                                                                                                                                a5 Down (-1\sigma)
  10^{1}
                                                                                                                                                                Data
  10<sup>0</sup>
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
     2
                                                                                                                                                                                            Data – Fit
Uncertainty
     0
    -2
     2
  1.5
     1
  0.5
                                    2 \times 10^{3}
                                                                          3 \times 10^3
                                                                                                     4 \times 10^3
                                                                                                                                          6 \times 10^{3}
```



```
SymbolFit
        1.0*((a2 + a3*tanh(a4*((x0 - 1568.5) * 0.000145275)))**(a1 + a5*((x0 - 1568.5) * 0.000145275)))
        a1 = -1.1776^{+0.06(5.1\%)}_{-0.06(5.1\%)}, a2 = 0.0142497^{+0.00309(21.7\%)}_{-0.00309(21.7\%)},
        \text{a3} = 0.0404802^{+0.00381(9.41\%)}_{-0.00381(9.41\%)}, \ \text{a4} = 2.04204^{+0.165(8.08\%)}_{-0.165(8.08\%)},
                                                                                                                                     Candidate #13
        a5 = 4.93839^{+0.25(5.06\%)}_{-0.25(5.06\%)}
                                                                                                 \chi^2/NDF = 36.1/37, RMSE = 0.02235, R2 = 1.0
              Best-fit
 10<sup>2</sup>
                                                                                                                                   al Up (+1\sigma)
                                                                                                                                   al Down (-1\sigma)
 10^{1}
                                                                                                                                   Data
 10<sup>0</sup>
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
    2
                                                                                                                                                          Data – Fit
Uncertainty
    0
   -2
  1.2
    1
  8.0
                              2 \times 10^{3}
                                                                                                                 6 \times 10^3
                                                            3 \times 10^{3}
                                                                                  4 \times 10^{3}
```

```
1.0*((a2 + a3*tanh(a4*((x0 - 1568.5) * 0.000145275)))**(a1 + a5*((x0 - 1568.5) * 0.000145275)))
         \mathtt{a1} = -1.1776^{+0.06(5.1\%)}_{-0.06(5.1\%)}, \ \ \mathbf{a2} = \mathbf{0.0142497}^{+0.00309(21.7\%)}_{-0.00309(21.7\%)},
         \text{a3} = 0.0404802^{+0.00381(9.41\%)}_{-0.00381(9.41\%)}, \ \text{a4} = 2.04204^{+0.165(8.08\%)}_{-0.165(8.08\%)},
                                                                                                                                                                   Candidate #13
         a5 = 4.93839^{+0.25(5.06\%)}_{-0.25(5.06\%)}
                                                                                                                      \chi^2/NDF = 36.1/37, RMSE = 0.02235, R2 = 1.0
                                                                                                                                                                Best-fit
  10^{2}
                                                                                                                                                                a2 Up (+1\sigma)
                                                                                                                                                                a2 Down (-1\sigma)
  10^{1}
                                                                                                                                                                Data
 10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
     2
                                                                                                                                                                                            Data – Fit
Uncertainty
     0
    -2
  1.2
     1
  8.0
                                    2 \times 10^{3}
                                                                                                                                          6 \times 10^3
                                                                          3 \times 10^3
                                                                                                     4 \times 10^3
```

```
1.0*((a2 + a3*tanh(a4*((x0 - 1568.5) * 0.000145275)))**(a1 + a5*((x0 - 1568.5) * 0.000145275)))
         \text{a1} = -1.1776^{+0.06(5.1\%)}_{-0.06(5.1\%)}, \ \text{a2} = 0.0142497^{+0.00309(21.7\%)}_{-0.00309(21.7\%)},
         \mathbf{a3} = \mathbf{0.0404802}^{+0.00381(9.41\%)}_{-0.00381(9.41\%)}, \quad \mathbf{a4} = 2.04204^{+0.165(8.08\%)}_{-0.165(8.08\%)},
                                                                                                                                                                    Candidate #13
         a5 = 4.93839^{+0.25(5.06\%)}_{-0.25(5.06\%)}
                                                                                                                       \chi^2/NDF = 36.1/37, RMSE = 0.02235, R2 = 1.0
                                                                                                                                                                 Best-fit
  10^{2}
                                                                                                                                                                 a3 Up (+1\sigma)
                                                                                                                                                                 a3 Down (-1\sigma)
  10^{1}
                                                                                                                                                                 Data
  10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
     2
                                                                                                                                                                                             Data – Fit
Uncertainty
     0
    -2
  1.2
     1
  0.8
                                     2 \times 10^{3}
                                                                                                                                           6 \times 10^3
                                                                          3 \times 10^{3}
                                                                                                     4 \times 10^3
```

```
1.0*((a2 + a3*tanh(a4*((x0 - 1568.5) * 0.000145275)))**(a1 + a5*((x0 - 1568.5) * 0.000145275)))
                                               a2 = 0.0142497^{+0.00309(21.7\%)}_{-0.00309(21.7\%)},
           a1 = -1.1776^{+0.06(5.1\%)}_{-0.06(5.1\%)},
           \text{a3} = 0.0404802^{+0.00381(9.41\%)}_{-0.00381(9.41\%)}, \quad \textbf{a4} = \textbf{2.04204}^{+0.165(8.08\%)}_{-0.165(8.08\%)},
                                                                                                                                                                Candidate #13
          a5 = 4.93839^{+0.25(5.06\%)}_{-0.25(5.06\%)}
                                                                                                                    \chi^2/NDF = 36.1/37, RMSE = 0.02235, R2 = 1.0
                                                                                                                                                             Best-fit
   10^{2}
                                                                                                                                                             a4 Up (+1\sigma)
                                                                                                                                                             a4 Down (-1\sigma)
   10^{1}
                                                                                                                                                             Data
   10<sup>0</sup>
 10^{-1}
 10^{-2}
 10^{-3}
 10^{-4}
 10^{-5}
       2
                                                                                                                                                                                        Data – Fit
Uncertainty
      0
     -2
  1.03
       1
0.975
  0.95
                                     2 \times 10^3
                                                                         3 \times 10^3
                                                                                                   4 \times 10^{3}
                                                                                                                                        6 \times 10^{3}
```

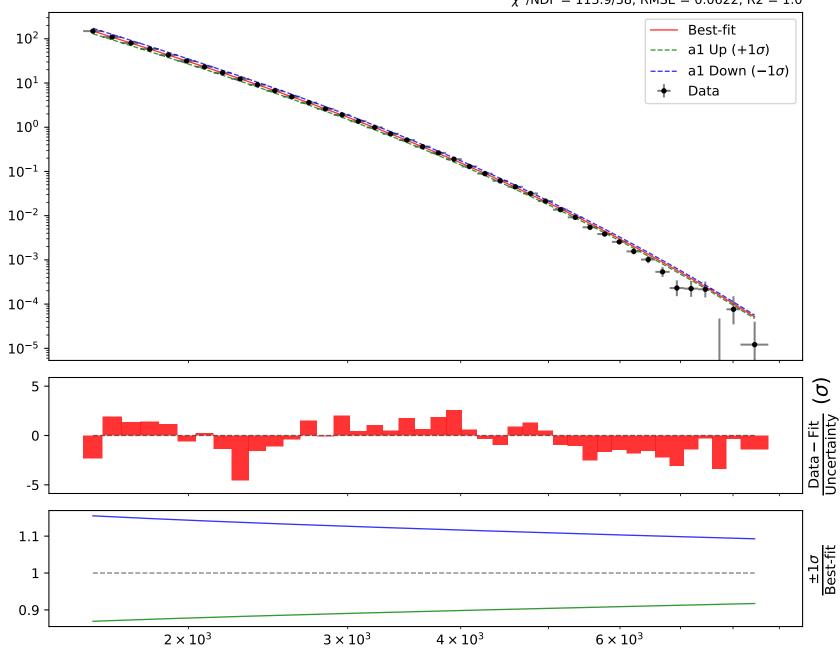
```
1.0*((a2 + a3*tanh(a4*((x0 - 1568.5) * 0.000145275)))**(a1 + a5*((x0 - 1568.5) * 0.000145275)))
         a1 = -1.1776^{+0.06(5.1\%)}_{-0.06(5.1\%)}, \ a2 = 0.0142497^{+0.00309(21.7\%)}_{-0.00309(21.7\%)},
         \text{a3} = 0.0404802^{+0.00381(9.41\%)}_{-0.00381(9.41\%)}, \ \text{a4} = 2.04204^{+0.165(8.08\%)}_{-0.165(8.08\%)},
                                                                                                                                                                  Candidate #13
         \mathbf{a5} = \mathbf{4.93839}^{+0.25(5.06\%)}_{-0.25(5.06\%)}
                                                                                                                      \chi^2/NDF = 36.1/37, RMSE = 0.02235, R2 = 1.0
                                                                                                                                                               Best-fit
  10^{2}
                                                                                                                                                               a5 Up (+1\sigma)
                                                                                                                                                               a5 Down (-1\sigma)
  10^{1}
                                                                                                                                                               Data
  10<sup>0</sup>
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
     2
                                                                                                                                                                                           Data – Fit
Uncertainty
     0
    -2
     2
  1.5
     1
  0.5
                                    2 \times 10^{3}
                                                                                                                                          6 \times 10^3
                                                                         3 \times 10^3
                                                                                                    4 \times 10^3
```

Candidate function #12

 $\begin{array}{l} \textbf{a1} = -\textbf{0.866921}^{+0.02426(2.8\%)}_{-\textbf{0.02495}(2.88\%)}, \quad \textbf{a2} = 0.00309996^{+0.0005455(17.6\%)}_{-0.0004764(15.4\%)}, \\ \textbf{a3} = 0.0254739^{+0.003365(13.2\%)}_{-0.00308(12.1\%)}, \quad \textbf{a4} = 3.64451^{+0.1056(2.9\%)}_{-0.1026(2.82\%)} \end{array}$

Candidate #12

 χ^2 /NDF = 113.9/38, RMSE = 0.0622, R2 = 1.0



```
1.0*((a2 + a3*((x0 - 1568.5) * 0.000145275)))**(a1 + a4*((x0 - 1568.5) * 0.000145275)))
         a1 = -0.866921^{+0.02426(2.8\%)}_{-0.02495(2.88\%)},
                                                        \mathbf{a2} = \mathbf{0.00309996}^{+0.0005455(17.6\%)}_{-0.0004764(15.4\%)},
                                                       a4 = 3.64451^{+0.1056(2.9\%)}_{-0.1026(2.82\%)}
         \text{a3} = 0.0254739^{+0.003365(13.2\%)}_{-0.00308(12.1\%)}\text{,}
                                                                                                                                                                 Candidate #12
                                                                                                                     \chi^2/NDF = 113.9/38, RMSE = 0.0622, R2 = 1.0
                                                                                                                                                              Best-fit
  10^{2}
                                                                                                                                                              a2 Up (+1\sigma)
                                                                                                                                                              a2 Down (-1\sigma)
  10^{1}
                                                                                                                                                              Data
  10<sup>0</sup>
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
                                                                                                                                                                                            <u>6</u>
     5
                                                                                                                                                                                          Data – Fit
Uncertainty
     0
    -5
  1.1
     1
  0.9
                                    2 \times 10^3
                                                                         3 \times 10^3
                                                                                                                                         6 \times 10^3
                                                                                                    4 \times 10^{3}
```

```
1.0*((a2 + a3*((x0 - 1568.5) * 0.000145275)))**(a1 + a4*((x0 - 1568.5) * 0.000145275)))
         \mathtt{a1} = -0.866921^{+0.02426(2.8\%)}_{-0.02495(2.88\%)},
                                                        a2 = 0.00309996^{+0.0005455(17.6\%)}_{-0.0004764(15.4\%)},
         \mathbf{a3} = \mathbf{0.0254739}^{+0.003365(13.2\%)}_{-0.00308(12.1\%)},
                                                           a4 = 3.64451^{+0.1056(2.9\%)}_{-0.1026(2.82\%)}
                                                                                                                                                                   Candidate #12
                                                                                                                      \chi^2/NDF = 113.9/38, RMSE = 0.0622, R2 = 1.0
                                                                                                                                                                Best-fit
  10<sup>2</sup>
                                                                                                                                                                a3 Up (+1\sigma)
                                                                                                                                                                a3 Down (-1\sigma)
  10^{1}
                                                                                                                                                                Data
  10<sup>0</sup>
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
                                                                                                                                                                                              <u>g</u>
     5
                                                                                                                                                                                            Data – Fit
Uncertainty
     0
    -5
  1.2
     1
  8.0
                                    2 \times 10^{3}
                                                                          3 \times 10^3
                                                                                                                                          6 \times 10^3
                                                                                                    4 \times 10^{3}
```

```
1.0*((a2 + a3*((x0 - 1568.5) * 0.000145275)))**(a1 + a4*((x0 - 1568.5) * 0.000145275)))
         a1 = -0.866921^{+0.02426(2.8\%)}_{-0.02495(2.88\%)},
                                                        a2 = 0.00309996^{+0.0005455(17.6\%)}_{-0.0004764(15.4\%)},
         \text{a3} = 0.0254739^{+0.003365(13.2\%)}_{-0.00308(12.1\%)}\text{,}
                                                        \mathbf{a4} = \mathbf{3.64451}^{+0.1056(2.9\%)}_{-0.1026(2.82\%)}
                                                                                                                                                                    Candidate #12
                                                                                                                       \chi^2/NDF = 113.9/38, RMSE = 0.0622, R2 = 1.0
                                                                                                                                                                 Best-fit
  10<sup>2</sup>
                                                                                                                                                                 a4 Up (+1\sigma)
                                                                                                                                                                 a4 Down (-1\sigma)
  10^{1}
                                                                                                                                                                 Data
  10<sup>0</sup>
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
                                                                                                                                                                                               <u>6</u>
     5
                                                                                                                                                                                             Data – Fit
Uncertainty
     0
    -5
1.25
     1
0.75
                                     2 \times 10^{3}
                                                                          3 \times 10^3
                                                                                                                                           6 \times 10^3
                                                                                                     4 \times 10^{3}
```



```
1.0*((a2*tanh(a3 + a4*((x0 - 1568.5) * 0.000145275)))**(a1 + a5*((x0 - 1568.5) * 0.000145275)))
         \mathbf{a1} = -1.59685^{+0.243(15.2\%)}_{-0.243(15.2\%)}, \quad \mathbf{a2} = 0.119421^{+0.0358(30.0\%)}_{-0.0358(30.0\%)},
         \text{a3} = 0.381837^{+0.0749(19.6\%)}_{-0.0749(19.6\%)}, \ \text{a4} = 1.79147^{+0.138(7.7\%)}_{-0.138(7.7\%)},
                                                                                                                                                                  Candidate #11
         a5 = 6.69608^{+1.02(15.2\%)}_{-1.02(15.2\%)}
                                                                                                                    \chi^2/NDF = 36.05/37, RMSE = 0.02212, R2 = 1.0
                                                                                                                                                               Best-fit
  10^{2}
                                                                                                                                                               al Up (+1\sigma)
                                                                                                                                                               a1 Down (-1\sigma)
  10^{1}
                                                                                                                                                               Data
  10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
     2
                                                                                                                                                                                           Data – Fit
Uncertainty
     0
    -2
     2
  1.5
     1
  0.5
                                    2 \times 10^{3}
                                                                                                                                         6 \times 10^3
                                                                         3 \times 10^{3}
                                                                                                    4 \times 10^3
```

```
1.0*((a2*tanh(a3 + a4*((x0 - 1568.5) * 0.000145275)))**(a1 + a5*((x0 - 1568.5) * 0.000145275)))
                                                  \mathbf{a2} = \mathbf{0.119421}^{+0.0358(30.0\%)}_{-0.0358(30.0\%)},
         a1 = -1.59685^{+0.243(15.2\%)}_{-0.243(15.2\%)},
         \mathsf{a3} = 0.381837^{+0.0749(19.6\%)}_{-0.0749(19.6\%)},
                                                  a4 = 1.79147^{+0.138(7.7\%)}_{-0.138(7.7\%)},
                                                                                                                                                                Candidate #11
         a5 = 6.69608^{+1.02(15.2\%)}_{-1.02(15.2\%)}
                                                                                                                  \chi^2/NDF = 36.05/37, RMSE = 0.02212, R2 = 1.0
                                                                                                                                                             Best-fit
  10^{2}
                                                                                                                                                             a2 Up (+1\sigma)
                                                                                                                                                             a2 Down (-1\sigma)
  10^{1}
                                                                                                                                                             Data
  10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
     2
                                                                                                                                                                                        Data – Fit
Uncertainty
     0
    -2
     2
     0
                                    2 \times 10^{3}
                                                                                                                                        6 \times 10^3
                                                                        3 \times 10^{3}
                                                                                                   4 \times 10^{3}
```

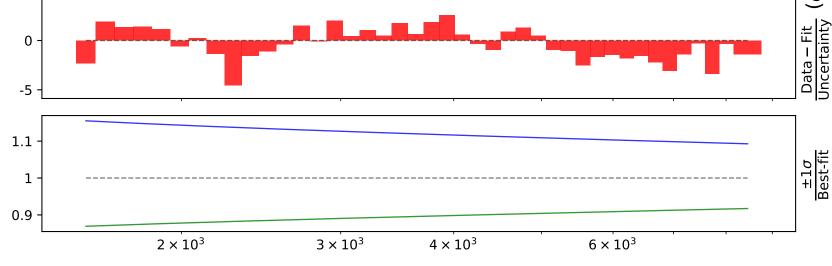
```
1.0*((a2*tanh(a3 + a4*((x0 - 1568.5) * 0.000145275)))**(a1 + a5*((x0 - 1568.5) * 0.000145275)))
                                                   a2 = 0.119421^{+0.0358(30.0\%)}_{-0.0358(30.0\%)},
         a1 = -1.59685^{+0.243(15.2\%)}_{-0.243(15.2\%)},
         \mathbf{a3} = \mathbf{0.381837}^{+0.0749(19.6\%)}_{-0.0749(19.6\%)},
                                                      a4 = 1.79147^{+0.138(7.7\%)}_{-0.138(7.7\%)},
                                                                                                                                                                  Candidate #11
         a5 = 6.69608^{+1.02(15.2\%)}_{-1.02(15.2\%)}
                                                                                                                    \chi^2/NDF = 36.05/37, RMSE = 0.02212, R2 = 1.0
                                                                                                                                                               Best-fit
  10<sup>2</sup>
                                                                                                                                                               a3 Up (+1\sigma)
                                                                                                                                                               a3 Down (-1\sigma)
  10^{1}
                                                                                                                                                               Data
 10<sup>0</sup>
10^{-1}
10^{-2}
10<sup>-3</sup>
10^{-4}
10^{-5}
     2
                                                                                                                                                                                           Data – Fit
Uncertainty
     0
    -2
  1.4
  1.2
     1
  0.8
                                    2 \times 10^{3}
                                                                                                                                         6 \times 10^3
                                                                         3 \times 10^{3}
                                                                                                    4 \times 10^3
```

```
1.0*((a2*tanh(a3 + a4*((x0 - 1568.5) * 0.000145275)))**(a1 + a5*((x0 - 1568.5) * 0.000145275)))
                                                 a2 = 0.119421^{+0.0358(30.0\%)}_{-0.0358(30.0\%)},
         a1 = -1.59685^{+0.243(15.2\%)}_{-0.243(15.2\%)},
         a3 = 0.381837^{+0.0749(19.6\%)}_{-0.0749(19.6\%)},
                                                 \mathbf{a4} = \mathbf{1.79147}^{+0.138(7.7\%)}_{-0.138(7.7\%)},
                                                                                                                                                             Candidate #11
         a5 = 6.69608^{+1.02(15.2\%)}_{-1.02(15.2\%)}
                                                                                                                \chi^2/NDF = 36.05/37, RMSE = 0.02212, R2 = 1.0
                                                                                                                                                          Best-fit
  10^{2}
                                                                                                                                                          a4 Up (+1\sigma)
                                                                                                                                                          a4 Down (-1\sigma)
  10^{1}
                                                                                                                                                          Data
  10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
     2
                                                                                                                                                                                    Data – Fit
Uncertainty
     0
    -2
     1
0.95
                                   2 \times 10^{3}
                                                                                                                                     6 \times 10^3
                                                                       3 \times 10^3
                                                                                                 4 \times 10^3
```

```
1.0*((a2*tanh(a3 + a4*((x0 - 1568.5) * 0.000145275)))**(a1 + a5*((x0 - 1568.5) * 0.000145275)))
         a1 = -1.59685^{+0.243(15.2\%)}_{-0.243(15.2\%)},
                                                   a2 = 0.119421^{+0.0358(30.0\%)}_{-0.0358(30.0\%)},
         a3 = 0.381837^{+0.0749(19.6\%)}_{-0.0749(19.6\%)},
                                                   a4 = 1.79147^{+0.138(7.7\%)}_{-0.138(7.7\%)},
                                                                                                                                                                  Candidate #11
         \mathbf{a5} = \mathbf{6.69608}^{+1.02(15.2\%)}_{-1.02(15.2\%)}
                                                                                                                    \chi^2/NDF = 36.05/37, RMSE = 0.02212, R2 = 1.0
                                                                                                                                                               Best-fit
  10^{2}
                                                                                                                                                               a5 Up (+1\sigma)
                                                                                                                                                               a5 Down (-1\sigma)
  10^{1}
                                                                                                                                                               Data
  10^{0}
10^{-1}
10^{-2}
10<sup>-3</sup>
10^{-4}
10<sup>-5</sup>
10^{-6}
                                                                                                                                                                                            <u>g</u>
     2
                                                                                                                                                                                          Data – Fit
Uncertainty
     0
    -2
  7.5 -
     5
  2.5
     0
                                    2 \times 10^{3}
                                                                                                                                         6 \times 10^3
                                                                         3 \times 10^{3}
                                                                                                    4 \times 10^{3}
```



 $\mathbf{a1} = -\mathbf{0.866918}^{+0.02426(2.8\%)}_{-0.02495(2.88\%)}, \quad \mathbf{a2} = 0.0030999^{+0.0005455(17.6\%)}_{-0.0004763(15.4\%)},$ $a3 = 0.0254735^{+0.003365(13.2\%)}_{-0.003079(12.1\%)},$ $a4 = 3.64449^{+0.1056(2.9\%)}_{-0.1026(2.82\%)}$ Candidate #10 $\chi^2/NDF = 113.9/38$, RMSE = 0.06219, R2 = 1.0 Best-fit 10^{2} al Up $(+1\sigma)$ al Down (-1σ) 10^{1} Data 10⁰ 10^{-1} 10^{-2} 10^{-3} 10^{-4} 10^{-5} <u>g</u> 5



```
1.0*((a2 + a3*((x0 - 1568.5) * 0.000145275)))**(a1 + a4*((x0 - 1568.5) * 0.000145275)))
         a1 = -0.866918^{+0.02426(2.8\%)}_{-0.02495(2.88\%)},
                                                       \mathbf{a2} = \mathbf{0.0030999}^{+0.0005455(17.6\%)}_{-0.0004763(15.4\%)},
         \mathsf{a3} = 0.0254735^{+0.003365(13.2\%)}_{-0.003079(12.1\%)},
                                                       a4 = 3.64449^{+0.1056(2.9\%)}_{-0.1026(2.82\%)}
                                                                                                                                                                 Candidate #10
                                                                                                                   \chi^2/NDF = 113.9/38, RMSE = 0.06219, R2 = 1.0
                                                                                                                                                              Best-fit
  10^{2}
                                                                                                                                                              a2 Up (+1\sigma)
                                                                                                                                                              a2 Down (-1\sigma)
  10^{1}
                                                                                                                                                              Data
  10<sup>0</sup>
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
                                                                                                                                                                                           <u>g</u>
     5
                                                                                                                                                                                         Data – Fit
Uncertainty
     0
    -5
  1.1
     1
  0.9
                                    2 \times 10^3
                                                                         3 \times 10^3
                                                                                                                                        6 \times 10^3
                                                                                                   4 \times 10^{3}
```

```
1.0*((a2 + a3*((x0 - 1568.5) * 0.000145275)))**(a1 + a4*((x0 - 1568.5) * 0.000145275)))
         a1 = -0.866918^{+0.02426(2.8\%)}_{-0.02495(2.88\%)},
                                                         \mathsf{a2} = 0.0030999^{+0.0005455(17.6\%)}_{-0.0004763(15.4\%)},
         \mathbf{a3} = \mathbf{0.0254735}^{+0.003365(13.2\%)}_{-0.003079(12.1\%)},
                                                            a4 = 3.64449^{+0.1056(2.9\%)}_{-0.1026(2.82\%)}
                                                                                                                                                                    Candidate #10
                                                                                                                     \chi^2/\text{NDF} = 113.9/38, RMSE = 0.06219, R2 = 1.0
                                                                                                                                                                 Best-fit
  10<sup>2</sup>
                                                                                                                                                                 a3 Up (+1\sigma)
                                                                                                                                                                 a3 Down (-1\sigma)
 10^1
                                                                                                                                                                 Data
  10<sup>0</sup>
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
                                                                                                                                                                                               <u>g</u>
     5
                                                                                                                                                                                             Data – Fit
Uncertainty
     0
    -5
  1.2
     1
  8.0
                                     2 \times 10^{3}
                                                                          3 \times 10^3
                                                                                                                                           6 \times 10^3
                                                                                                     4 \times 10^{3}
```

```
1.0*((a2 + a3*((x0 - 1568.5) * 0.000145275)))**(a1 + a4*((x0 - 1568.5) * 0.000145275)))
          a1 = -0.866918^{+0.02426(2.8\%)}_{-0.02495(2.88\%)},
                                                         \mathsf{a2} = 0.0030999^{+0.0005455(17.6\%)}_{-0.0004763(15.4\%)},
          \mathsf{a3} = 0.0254735^{+0.003365(13.2\%)}_{-0.003079(12.1\%)},
                                                         \mathbf{a4} = \mathbf{3.64449}^{+0.1056(2.9\%)}_{-0.1026(2.82\%)}
                                                                                                                                                                      Candidate #10
                                                                                                                      \chi^2/NDF = 113.9/38, RMSE = 0.06219, R2 = 1.0
                                                                                                                                                                  Best-fit
  10<sup>2</sup>
                                                                                                                                                                  a4 Up (+1\sigma)
                                                                                                                                                                  a4 Down (-1\sigma)
  10^{1}
                                                                                                                                                                   Data
  10<sup>0</sup>
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
                                                                                                                                                                                                 <u>6</u>
     5
                                                                                                                                                                                               Data – Fit
Uncertainty
     0
    -5
1.25
     1
0.75
                                     2 \times 10^{3}
                                                                           3 \times 10^3
                                                                                                                                            6 \times 10^3
                                                                                                      4 \times 10^{3}
```



 $\mathbf{a1} = -1.01258^{+0.02794(2.76\%)}_{-0.02913(2.88\%)}, \quad \mathbf{a2} = 0.0502094^{+0.0055(11.0\%)}_{-0.005064(10.1\%)},$ $\text{a3} = 0.14278^{+0.005203(3.64\%)}_{-0.004975(3.48\%)}, \ \text{a4} = 4.2531^{+0.123(2.89\%)}_{-0.1179(2.77\%)}$ Candidate #9 $\chi^2/NDF = 64.56/38$, RMSE = 0.04144, R2 = 1.0 Best-fit 10² al Up $(+1\sigma)$ al Down (-1σ) 10^{1} Data 10^{0} 10^{-1} 10^{-2} 10^{-3} 10^{-4} 10^{-5} 5 Data – Fit Uncertainty 0 1.1 1 0.9 2×10^3 3×10^3 4×10^3 6×10^3

```
1.0*((a2*tanh(a3 + ((x0 - 1568.5) * 0.000145275)))**(a1 + a4*((x0 - 1568.5) * 0.000145275)))
         \mathrm{a1} = -1.01258^{+0.02794(2.76\%)}_{-0.02913(2.88\%)}\text{,}
                                                   a2 = 0.0502094^{+0.0055(11.0\%)}_{-0.005064(10.1\%)},
         \text{a3} = 0.14278^{+0.005203(3.64\%)}_{-0.004975(3.48\%)}, \ \text{a4} = 4.2531^{+0.123(2.89\%)}_{-0.1179(2.77\%)}
                                                                                                                                                            Candidate #9
                                                                                                              \chi^2/NDF = 64.56/38, RMSE = 0.04144, R2 = 1.0
                                                                                                                                                        Best-fit
  10^{2}
                                                                                                                                                        a2 Up (+1\sigma)
                                                                                                                                                        a2 Down (-1\sigma)
  10^{1}
                                                                                                                                                        Data
  10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
     5
                                                                                                                                                                                  Data – Fit
Uncertainty
     0
    -5
  1.4
  1.2
     1
  8.0
```

 6×10^3

 2×10^{3}

 3×10^3

```
1.0*((a2*tanh(a3 + ((x0 - 1568.5) * 0.000145275)))**(a1 + a4*((x0 - 1568.5) * 0.000145275)))
         \mathrm{a1} = -1.01258^{+0.02794(2.76\%)}_{-0.02913(2.88\%)},
                                                    a2 = 0.0502094^{+0.0055(11.0\%)}_{-0.005064(10.1\%)},
         \mathbf{a3} = \mathbf{0.14278}^{+0.005203(3.64\%)}_{-0.004975(3.48\%)},
                                                     a4 = 4.2531^{+0.123(2.89\%)}_{-0.1179(2.77\%)}
                                                                                                                                                              Candidate #9
                                                                                                                \chi^2/NDF = 64.56/38, RMSE = 0.04144, R2 = 1.0
                                                                                                                                                         Best-fit
  10^{2}
                                                                                                                                                         a3 Up (+1\sigma)
                                                                                                                                                         a3 Down (-1\sigma)
  10^{1}
                                                                                                                                                         Data
 10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
     5
                                                                                                                                                                                    Data – Fit
Uncertainty
     0
1.02
     1
0.98
                                   2 \times 10^3
                                                                       3 \times 10^3
                                                                                                                                     6 \times 10^3
                                                                                                4 \times 10^{3}
```

```
SymbolFit
         1.0*((a2*tanh(a3 + ((x0 - 1568.5) * 0.000145275)))**(a1 + a4*((x0 - 1568.5) * 0.000145275)))
         \mathrm{a1} = -1.01258^{+0.02794(2.76\%)}_{-0.02913(2.88\%)}\text{,}
                                                   a2 = 0.0502094^{+0.0055(11.0\%)}_{-0.005064(10.1\%)},
         a3 = 0.14278^{+0.005203(3.64\%)}_{-0.004975(3.48\%)},
                                                 \mathbf{a4} = \mathbf{4.2531}^{+0.123(2.89\%)}_{-0.1179(2.77\%)}
                                                                                                                                                            Candidate #9
                                                                                                              \chi^2/NDF = 64.56/38, RMSE = 0.04144, R2 = 1.0
                                                                                                                                                        Best-fit
  10^{2}
                                                                                                                                                        a4 Up (+1\sigma)
                                                                                                                                                        a4 Down (-1\sigma)
  10^{1}
                                                                                                                                                        Data
 10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
     5
                                                                                                                                                                                  Data – Fit
Uncertainty
     0
1.25
     1
0.75
                                  2 \times 10^{3}
                                                                      3 \times 10^3
                                                                                                                                   6 \times 10^3
```



 $\mathbf{a1} = -\textbf{0.866919}^{+0.02426(2.8\%)}_{-0.02495(2.88\%)}, \quad \mathbf{a2} = 0.00309991^{+0.0005455(17.6\%)}_{-0.0004763(15.4\%)},$ $a3 = 0.0254735^{+0.003365(13.2\%)}_{-0.003079(12.1\%)}, \ a4 = 3.6445^{+0.1056(2.9\%)}_{-0.1026(2.82\%)}$ Candidate #8 $\chi^2/NDF = 113.9/38$, RMSE = 0.0622, R2 = 1.0 Best-fit 10^{2} al Up $(+1\sigma)$ al Down (-1σ) 10^{1} Data 10⁰ 10^{-1} 10^{-2} 10^{-3} 10^{-4} 10^{-5} <u>g</u> 5 Data – Fit Uncertainty 0 -5 1.1 1 0.9

 4×10^3

 6×10^3

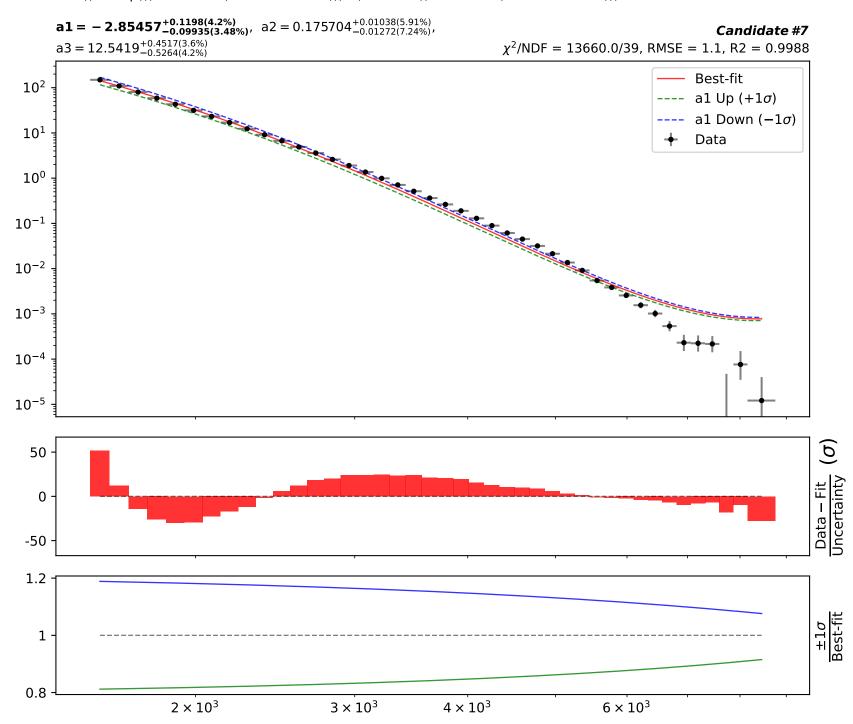
 3×10^3

```
1.0*((a2 + a3*((x0 - 1568.5) * 0.000145275)))**(a1 + a4*((x0 - 1568.5) * 0.000145275)))
         \mathsf{a1} = -0.866919^{+0.02426(2.8\%)}_{-0.02495(2.88\%)},
                                                       a2 = 0.00309991^{+0.0005455(17.6\%)}_{-0.0004763(15.4\%)},
         \mathsf{a3} = 0.0254735^{+0.003365(13.2\%)}_{-0.003079(12.1\%)},
                                                      a4 = 3.6445^{+0.1056(2.9\%)}_{-0.1026(2.82\%)}
                                                                                                                                                                Candidate #8
                                                                                                                   \chi^2/NDF = 113.9/38, RMSE = 0.0622, R2 = 1.0
                                                                                                                                                           Best-fit
  10^{2}
                                                                                                                                                           a2 Up (+1\sigma)
                                                                                                                                                           a2 Down (-1\sigma)
  10^{1}
                                                                                                                                                           Data
  10<sup>0</sup>
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
                                                                                                                                                                                         <u>g</u>
     5
                                                                                                                                                                                       Data – Fit
Uncertainty
     0
    -5
  1.1
     1
  0.9
                                   2 \times 10^3
                                                                        3 \times 10^3
                                                                                                                                      6 \times 10^3
                                                                                                  4 \times 10^{3}
```

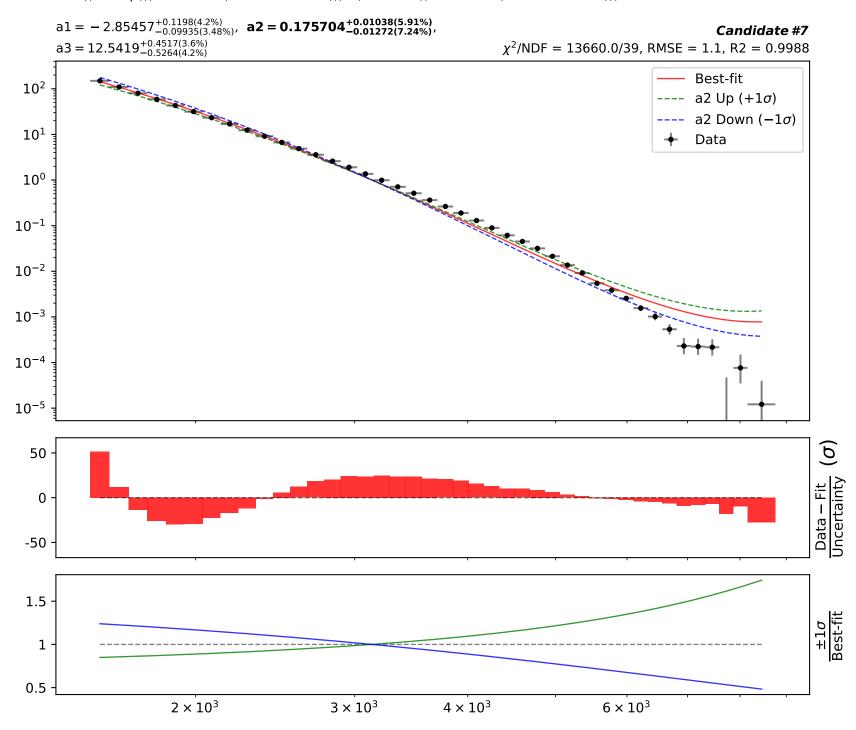
```
1.0*((a2 + a3*((x0 - 1568.5) * 0.000145275)))**(a1 + a4*((x0 - 1568.5) * 0.000145275)))
         \mathtt{a1} = -0.866919^{+0.02426(2.8\%)}_{-0.02495(2.88\%)},
                                                       a2 = 0.00309991^{+0.0005455(17.6\%)}_{-0.0004763(15.4\%)},
                                                          a4 = 3.6445^{+0.1056(2.9\%)}_{-0.1026(2.82\%)}
         \mathbf{a3} = \mathbf{0.0254735}^{+0.003365(13.2\%)}_{-0.003079(12.1\%)},
                                                                                                                                                                  Candidate #8
                                                                                                                    \chi^2/NDF = 113.9/38, RMSE = 0.0622, R2 = 1.0
                                                                                                                                                             Best-fit
  10^{2}
                                                                                                                                                             a3 Up (+1\sigma)
                                                                                                                                                             a3 Down (-1\sigma)
 10^1
                                                                                                                                                             Data
  10<sup>0</sup>
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
                                                                                                                                                                                           <u>g</u>
     5
                                                                                                                                                                                         Data – Fit
Uncertainty
     0
    -5
  1.2
     1
  8.0
                                    2 \times 10^{3}
                                                                         3 \times 10^3
                                                                                                   4 \times 10^3
                                                                                                                                        6 \times 10^3
```

```
1.0*((a2 + a3*((x0 - 1568.5) * 0.000145275)))**(a1 + a4*((x0 - 1568.5) * 0.000145275)))
         \mathsf{a1} = -0.866919^{+0.02426(2.8\%)}_{-0.02495(2.88\%)},
                                                        a2 = 0.00309991^{+0.0005455(17.6\%)}_{-0.0004763(15.4\%)},
         \mathsf{a3} = 0.0254735^{+0.003365(13.2\%)}_{-0.003079(12.1\%)},
                                                        \mathbf{a4} = \mathbf{3.6445}^{+0.1056(2.9\%)}_{-0.1026(2.82\%)}
                                                                                                                                                                      Candidate #8
                                                                                                                       \chi^2/NDF = 113.9/38, RMSE = 0.0622, R2 = 1.0
                                                                                                                                                                 Best-fit
  10^{2}
                                                                                                                                                                 a4 Up (+1\sigma)
                                                                                                                                                                 a4 Down (-1\sigma)
  10^{1}
                                                                                                                                                                 Data
  10<sup>0</sup>
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
                                                                                                                                                                                               <u>6</u>
     5
                                                                                                                                                                                             Data – Fit
Uncertainty
     0
    -5
1.25
     1
0.75
                                    2 \times 10^{3}
                                                                          3 \times 10^3
                                                                                                                                           6 \times 10^3
                                                                                                     4 \times 10^{3}
```

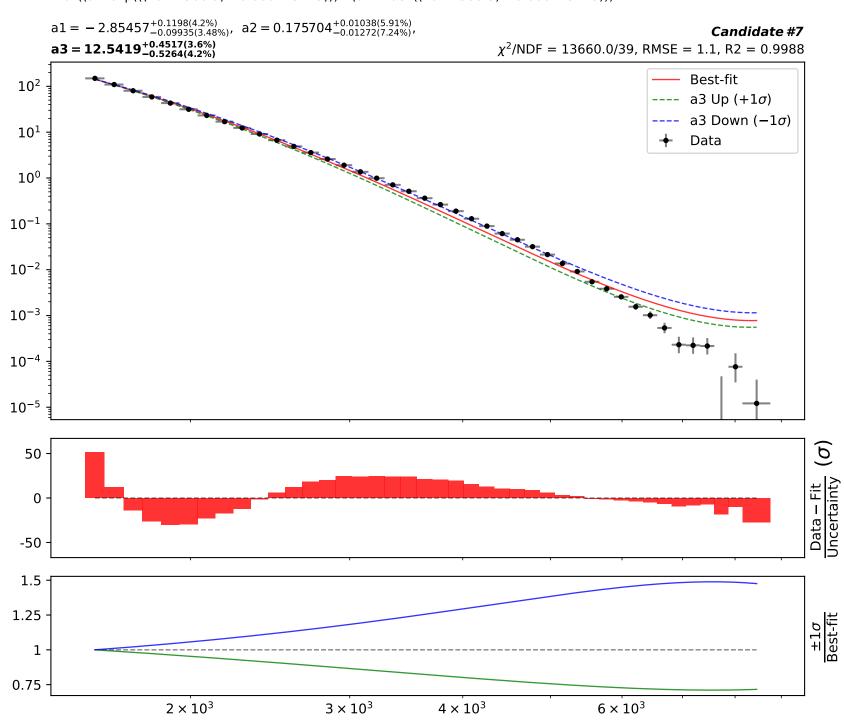




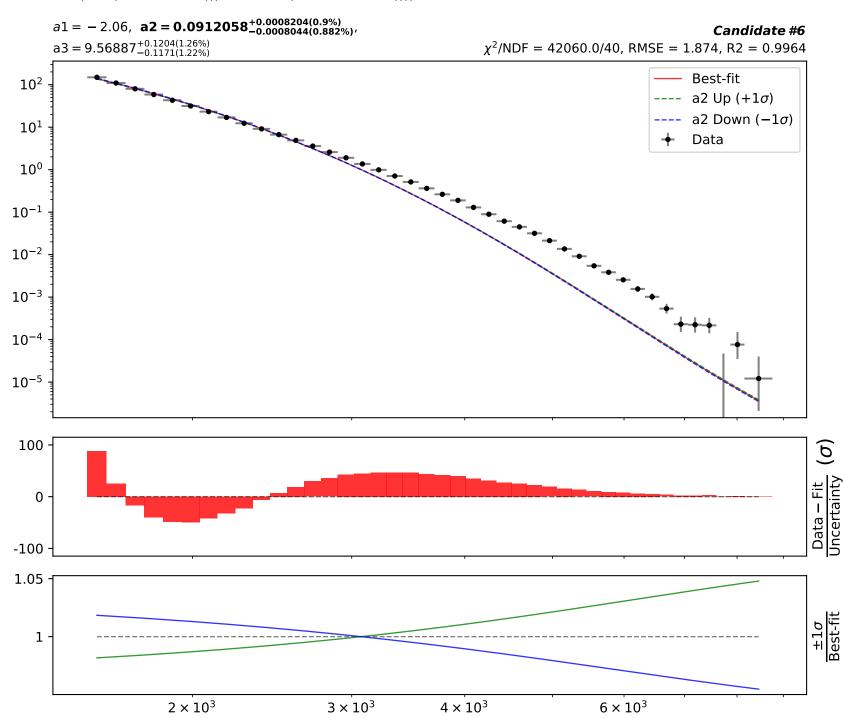
1.0*((a2*exp(((x0 - 1568.5) * 0.000145275)))**(a1 + a3*((x0 - 1568.5) * 0.000145275)))



1.0*((a2*exp(((x0 - 1568.5) * 0.000145275)))**(a1 + a3*((x0 - 1568.5) * 0.000145275)))

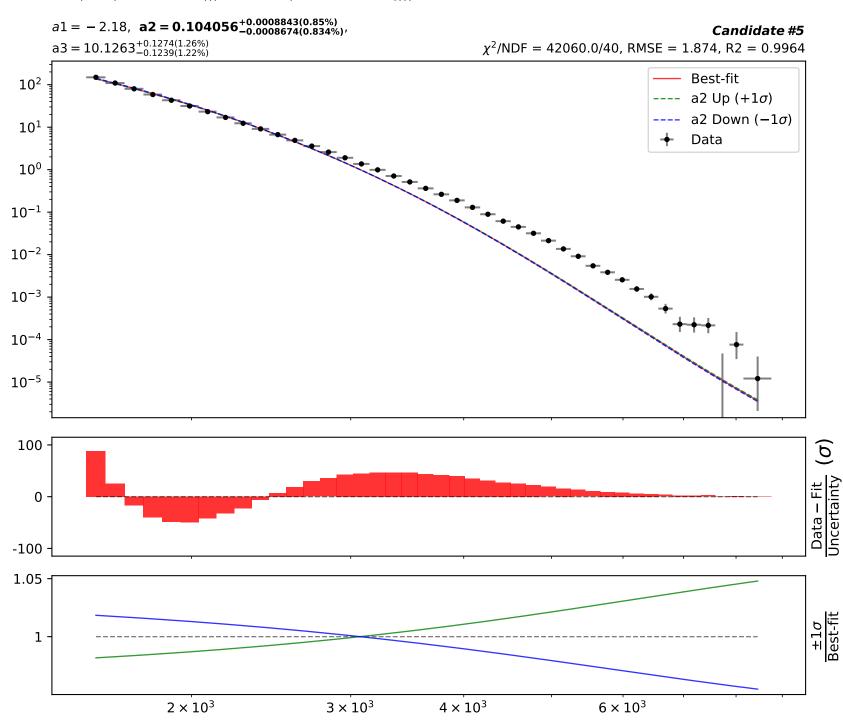




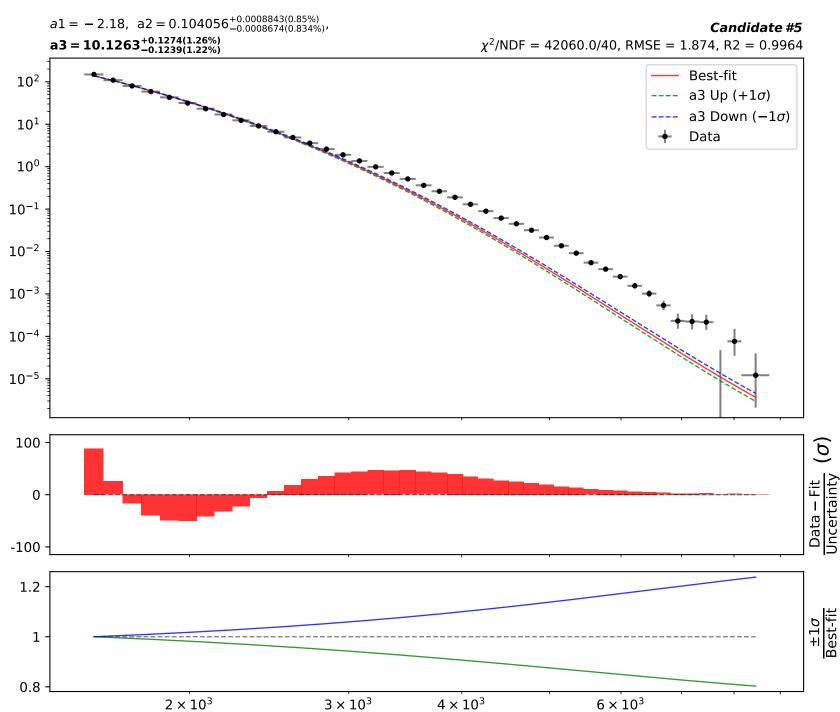


1.0*(a2**(a1 + a3*tanh(((x0 - 1568.5) * 0.000145275))))a1 = -2.06, $a2 = 0.0912058^{+0.0008204(0.9\%)}_{-0.0008044(0.882\%)}$, Candidate #6 $a3 = 9.56887^{+0.1204(1.26\%)}_{-0.1171(1.22\%)}$ $\chi^2/NDF = 42060.0/40$, RMSE = 1.874, R2 = 0.9964 Best-fit 10^{2} a3 Up $(+1\sigma)$ a3 Down (-1σ) 10^{1} Data 10^{0} 10^{-1} 10^{-2} 10^{-3} 10^{-4} 10^{-5} 100 (g Data – Fit Uncertainty 0 -100 1.2 1 8.0 2×10^3 3×10^3 4×10^3 6×10^3

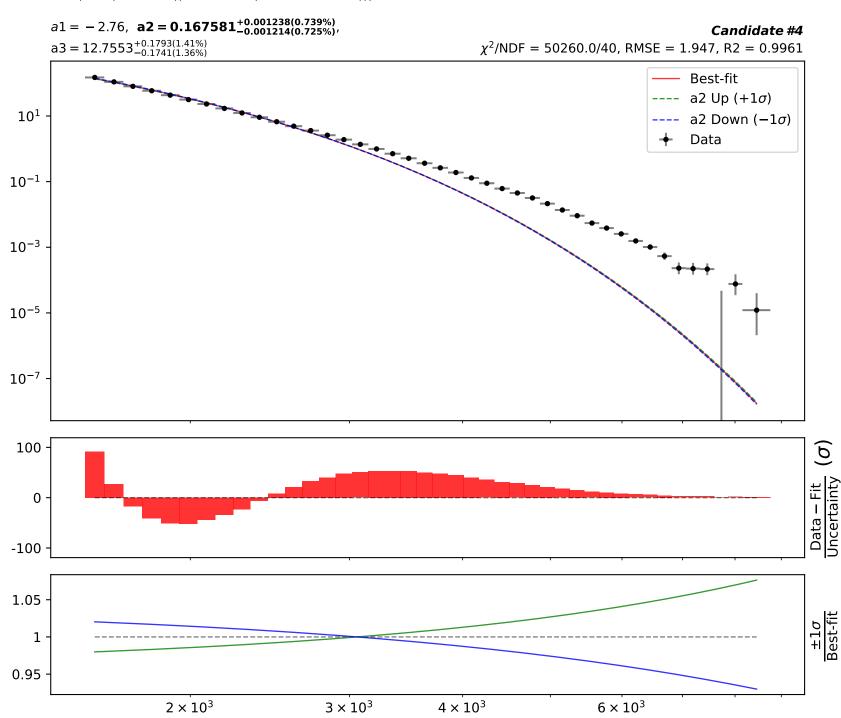




1.0*(a2**(a1 + a3*tanh(((x0 - 1568.5) * 0.000145275))))



Candidate function #4



1.0*(a2**(a1 + a3*((x0 - 1568.5) * 0.000145275)))a1 = -2.76, $a2 = 0.167581^{+0.001238(0.739\%)}_{-0.001214(0.725\%)}$, Candidate #4 $\mathbf{a3} = \mathbf{12.7553}^{+0.1793(1.41\%)}_{-0.1741(1.36\%)}$ $\chi^2/NDF = 50260.0/40$, RMSE = 1.947, R2 = 0.9961 Best-fit -- a3 Up $(+1\sigma)$ 10^{1} a3 Down (-1σ) Data 10^{-1} 10-3 - 10^{-5} 10^{-7} 100 $\widehat{\mathcal{Q}}$ Data – Fit Uncertainty 0 -100 1.2 1 8.0 2×10^3 6×10^3 3×10^{3} 4×10^3



1.0*(a1**((x0 - 1568.5) * 0.000145275)*a2) a1 = 0.000163, $a2 = 15.2158^{+3.98(26.2\%)}_{-3.98(26.2\%)}$ Candidate #3 $\chi^2/NDF = 4834000.0/41$, RMSE = 29.26, R2 = 0.1165 Best-fit 10^{2} ---- a2 Up $(+1\sigma)$ a2 Down (-1σ) 10^{1} Data 10⁰ 10^{-1} 10^{-2} 10⁻³ 10^{-4} 10^{-5} <u>a</u> 1e+03 Data – Fit Uncertainty 0 -1e+03 1.2 $\pm 1\sigma$ Best-fit 1 8.0 2×10^3 4×10^3 6×10^3 3×10^3



1.0*(a1**((x0 - 1568.5) * 0.000145275)*a2) a1 = 0.000163, $a2 = 15.2158^{+3.98(26.2\%)}_{-3.98(26.2\%)}$ Candidate #2 $\chi^2/NDF = 4834000.0/41$, RMSE = 29.26, R2 = 0.1165 Best-fit 10^{2} ---- a2 Up $(+1\sigma)$ a2 Down (-1σ) 10^{1} Data 10⁰ 10^{-1} 10^{-2} 10⁻³ 10^{-4} 10^{-5} <u>(d</u> 1e+03 Data – Fit Uncertainty 0 -1e+03 1.2 $\pm 1\sigma$ Best-fit 1 8.0 2×10^3 4×10^3 3×10^3 6×10^3



