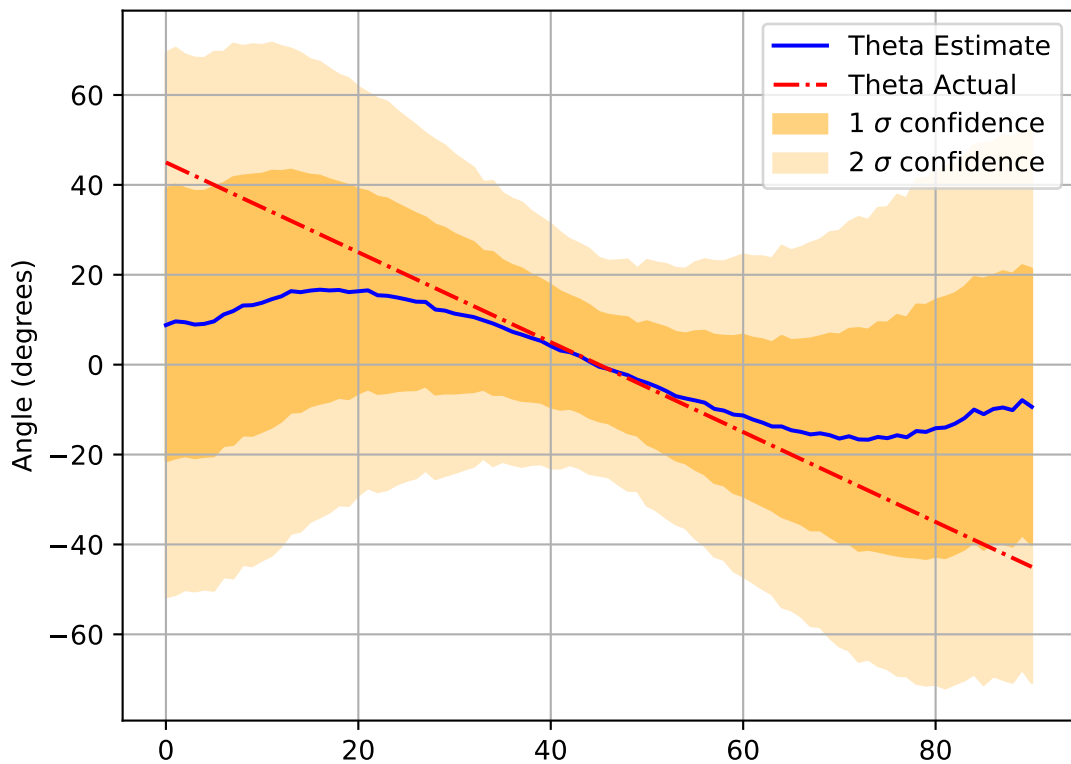


E = 1000 keV, N = 10000 particles



Pinhole radius: 0.750000 mm
Gap between window and detector: 31.500000 mm
Window thickness: 1000.000000 um
Shielding foil thickness: 10.000000 um

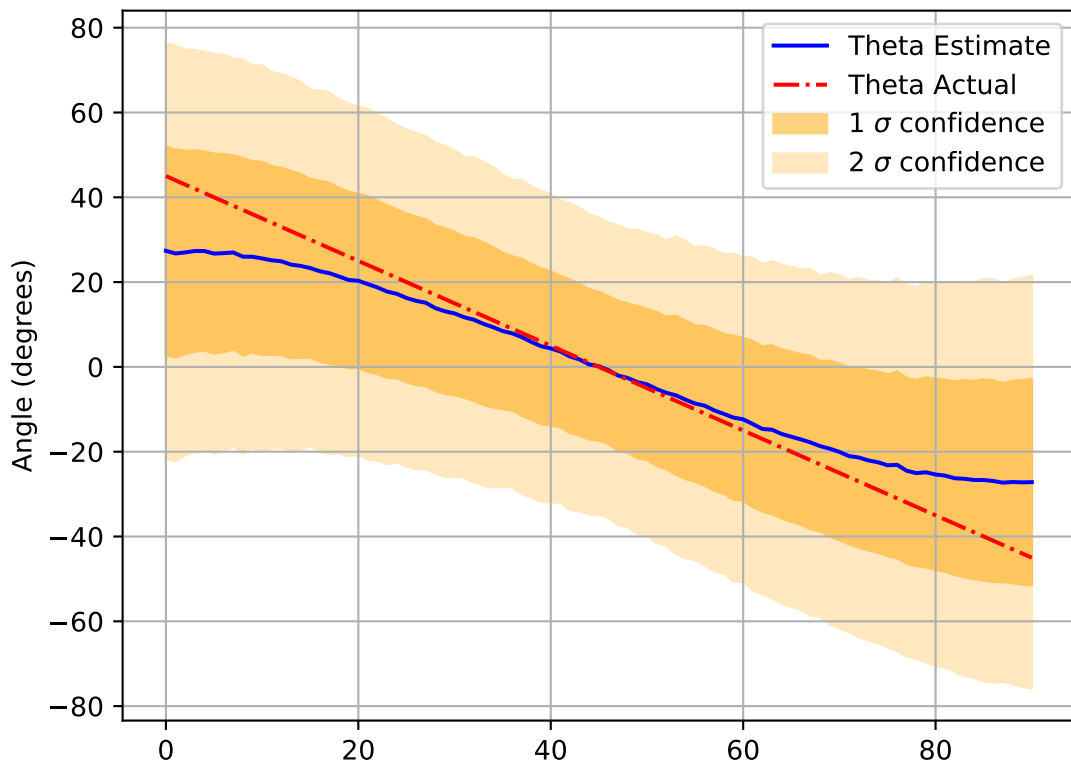
Theta Angle (degrees), Standard deviation (degrees):

| | |
|----|---------|
| 0 | 30.2630 |
| 1 | 30.3982 |
| 2 | 29.7611 |
| 3 | 29.6536 |
| 4 | 29.5296 |
| 5 | 29.9410 |
| 6 | 29.1886 |
| 7 | 29.7188 |
| 8 | 28.8348 |
| 9 | 28.9914 |
| 10 | 28.6380 |
| 11 | 28.5079 |
| 12 | 27.8014 |
| 13 | 26.9585 |
| 14 | 26.5988 |
| 15 | 25.7092 |
| 16 | 25.3106 |
| 17 | 24.6768 |
| 18 | 23.9225 |
| 19 | 23.7555 |
| 20 | 22.7022 |
| 21 | 21.9742 |
| 22 | 21.8747 |
| 23 | 21.5793 |
| 24 | 20.7961 |
| 25 | 20.1692 |
| 26 | 19.6107 |
| 27 | 18.7418 |
| 28 | 18.8462 |
| 29 | 18.3600 |
| | ... |
| 61 | 18.1173 |
| 62 | 18.4743 |
| 63 | 18.6519 |
| 64 | 20.0789 |
| 65 | 19.9994 |
| 66 | 20.5001 |
| 67 | 21.2839 |
| 68 | 21.5276 |
| 69 | 22.5392 |
| 70 | 23.0915 |
| 71 | 23.8170 |
| 72 | 24.7156 |
| 73 | 24.4192 |
| 74 | 25.4491 |
| 75 | 25.6572 |
| 76 | 26.7146 |
| 77 | 26.5723 |
| 78 | 28.0888 |
| 79 | 28.1868 |
| 80 | 28.5054 |
| 81 | 29.0097 |
| 82 | 28.9565 |

| | |
|----|---------|
| 83 | 29.1585 |
| 84 | 29.4263 |
| 85 | 30.1092 |
| 86 | 29.6984 |
| 87 | 30.2690 |
| 88 | 30.2967 |
| 89 | 29.9711 |
| 90 | 30.6954 |

Name: Theta_std, Length: 91, dtype: float64

E = 3000 keV, N = 10000 particles



Pinhole radius: 0.750000 mm
Gap between window and detector: 31.500000 mm
Window thickness: 1000.000000 um
Shielding foil thickness: 10.000000 um

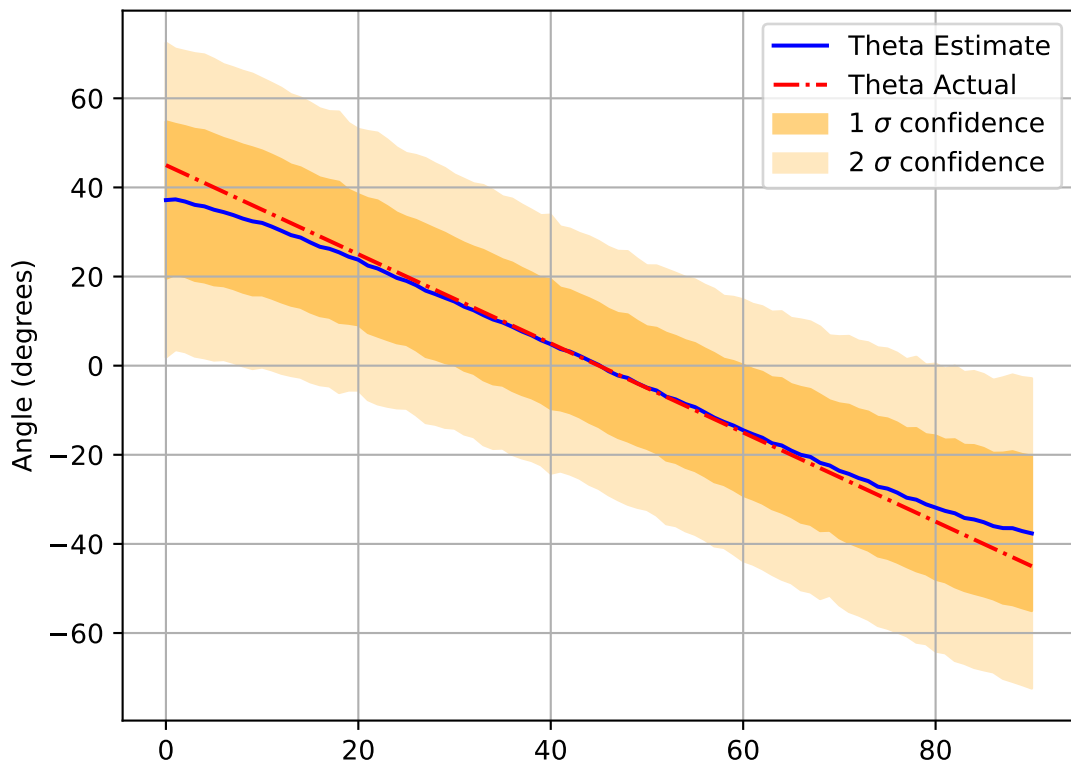
Theta Angle (degrees), Standard deviation (degrees):

| | |
|----|---------|
| 0 | 24.5223 |
| 1 | 24.4675 |
| 2 | 23.9114 |
| 3 | 23.6685 |
| 4 | 23.4478 |
| 5 | 23.5319 |
| 6 | 23.3463 |
| 7 | 22.8539 |
| 8 | 23.2294 |
| 9 | 22.5067 |
| 10 | 22.7510 |
| 11 | 22.1790 |
| 12 | 22.0212 |
| 13 | 22.0636 |
| 14 | 21.6497 |
| 15 | 21.0229 |
| 16 | 21.2793 |
| 17 | 21.3080 |
| 18 | 20.8208 |
| 19 | 20.7779 |
| 20 | 20.4987 |
| 21 | 20.6654 |
| 22 | 20.4007 |
| 23 | 20.3027 |
| 24 | 19.8680 |
| 25 | 19.8539 |
| 26 | 19.8113 |
| 27 | 19.6405 |
| 28 | 19.4656 |
| 29 | 19.5112 |
| | ... |
| 61 | 19.5826 |
| 62 | 19.4368 |
| 63 | 19.8736 |
| 64 | 19.9127 |
| 65 | 20.0284 |
| 66 | 20.0364 |
| 67 | 20.4183 |
| 68 | 20.0568 |
| 69 | 20.6859 |
| 70 | 20.7984 |
| 71 | 20.7405 |
| 72 | 21.1620 |
| 73 | 21.1882 |
| 74 | 21.3072 |
| 75 | 21.4180 |
| 76 | 21.9486 |
| 77 | 21.8522 |
| 78 | 21.9112 |
| 79 | 22.3716 |
| 80 | 22.5638 |
| 81 | 22.6091 |
| 82 | 22.7977 |

| | |
|----|---------|
| 83 | 23.2232 |
| 84 | 23.3117 |
| 85 | 23.7135 |
| 86 | 23.7580 |
| 87 | 23.4319 |
| 88 | 23.8117 |
| 89 | 24.0964 |
| 90 | 24.3118 |

Name: Theta_std, Length: 91, dtype: float64

E = 5000 keV, N = 10000 particles



Pinhole radius: 0.750000 mm
Gap between window and detector: 31.500000 mm
Window thickness: 1000.000000 um
Shielding foil thickness: 10.000000 um

Theta Angle (degrees), Standard deviation (degrees):

| | |
|----|---------|
| 0 | 17.6385 |
| 1 | 16.8768 |
| 2 | 16.8686 |
| 3 | 16.9913 |
| 4 | 17.0156 |
| 5 | 16.8953 |
| 6 | 16.5691 |
| 7 | 16.5493 |
| 8 | 16.5553 |
| 9 | 16.5457 |
| 10 | 16.2011 |
| 11 | 16.0955 |
| 12 | 16.0123 |
| 13 | 15.7806 |
| 14 | 15.6961 |
| 15 | 15.6670 |
| 16 | 15.5044 |
| 17 | 15.4151 |
| 18 | 15.7644 |
| 19 | 14.9835 |
| 20 | 14.6522 |
| 21 | 15.0687 |
| 22 | 15.2183 |
| 23 | 14.9672 |
| 24 | 14.6109 |
| 25 | 14.3174 |
| 26 | 14.5754 |
| 27 | 14.8344 |
| 28 | 14.6334 |
| 29 | 14.5496 |
| | ... |
| 61 | 14.5978 |
| 62 | 14.7249 |
| 63 | 14.7349 |
| 64 | 15.0326 |
| 65 | 14.8554 |
| 66 | 15.1655 |
| 67 | 15.1782 |
| 68 | 15.2614 |
| 69 | 14.5715 |
| 70 | 15.0740 |
| 71 | 15.4575 |
| 72 | 15.3938 |
| 73 | 15.5455 |
| 74 | 15.6029 |
| 75 | 15.6942 |
| 76 | 15.6627 |
| 77 | 15.5199 |
| 78 | 16.0137 |
| 79 | 15.6634 |
| 80 | 16.1277 |
| 81 | 15.9469 |
| 82 | 16.5439 |

| | |
|----|---------|
| 83 | 16.3460 |
| 84 | 16.6282 |
| 85 | 16.5925 |
| 86 | 16.3906 |
| 87 | 16.8821 |
| 88 | 17.2174 |
| 89 | 17.2508 |
| 90 | 17.3825 |

Name: Theta_std, Length: 91, dtype: float64