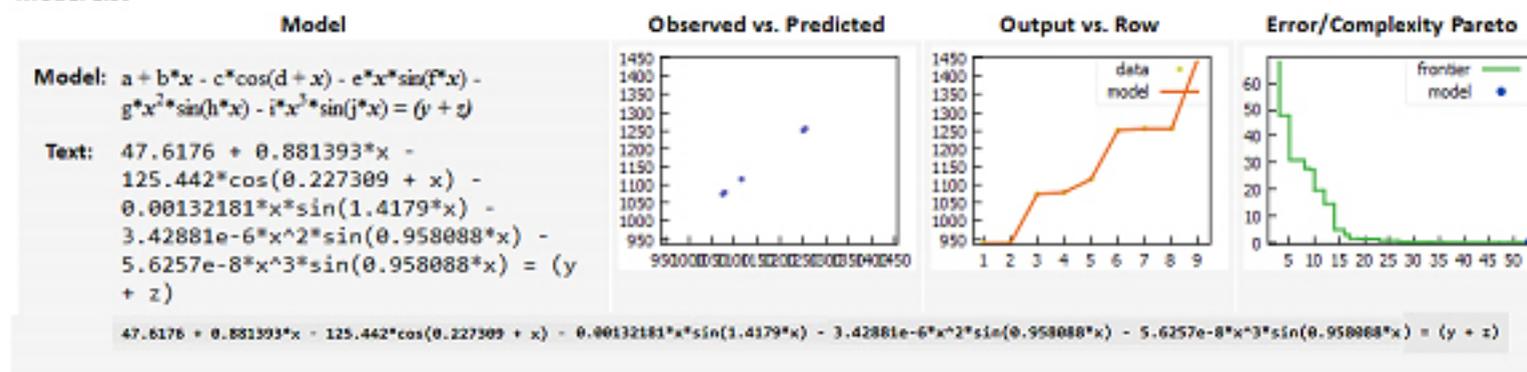Author: Michael Emerson

Presented here is a new relation between particle mass and decay products.

The Data:

var	x	y	z				
1	938.27231	938.27231	0	p → p			
2	939.56563	938.27231	0.51099907	n → p e^- $\bar{\nu}_e$			
3	1115.684	939.56563	134.9764	Λ → n π^0			
4	1189.37	939.56563	139.56995	Σ^+ → n π^+			
5	1192.55	1115.684	0	Σ^0 → Λ Υ			
6	1197.436	1115.684	134.9764	Σ^- → Λ π^-			
7	1314.9	1115.684	139.56995	Ξ^0 → Λ π^0			
8	1321.32	1115.684	139.56995	Ξ^- → Λ π^-			
9	1672.45	1314.9	139.56995	Ω^- → Ξ^0 π^-			
10							

The Fit to the data.

Model List

Model	Observed vs. Predicted	Output vs. Row	Error/Complexity Pareto

Model: $a + b*x - c*\cos(d + x) - e*x*\sin(f*x) - g*x^2*\sin(h*x) - i*x^3*\sin(j*x) = (y + z)$

Text: 47.6176 + 0.881393*x - 125.442*cos(0.227309 + x) - 0.00132181*x*sin(1.4179*x) - 3.42881e-6*x^2*sin(0.958088*x) - 5.6257e-8*x^3*sin(0.958088*x) = (y + z)

47.6176 + 0.881393*x - 125.442*cos(0.227309 + x) - 0.00132181*x*sin(1.4179*x) - 3.42881e-6*x^2*sin(0.958088*x) - 5.6257e-8*x^3*sin(0.958088*x) = (y + z)

$$a + b*x - c*\cos(d + x) - e*x*\sin(f*x) - g*x^2*\sin(h*x) - i*x^3*\sin(j*x) = (y + z)$$

```
47.6176 + 0.881393*x -
125.442*cos(0.227309 + x) -
0.00132181*x*sin(1.4179*x) -
3.42881e-6*x^2*sin(0.958088*x) -
5.6257e-8*x^3*sin(0.958088*x) = (y
+ z)
```