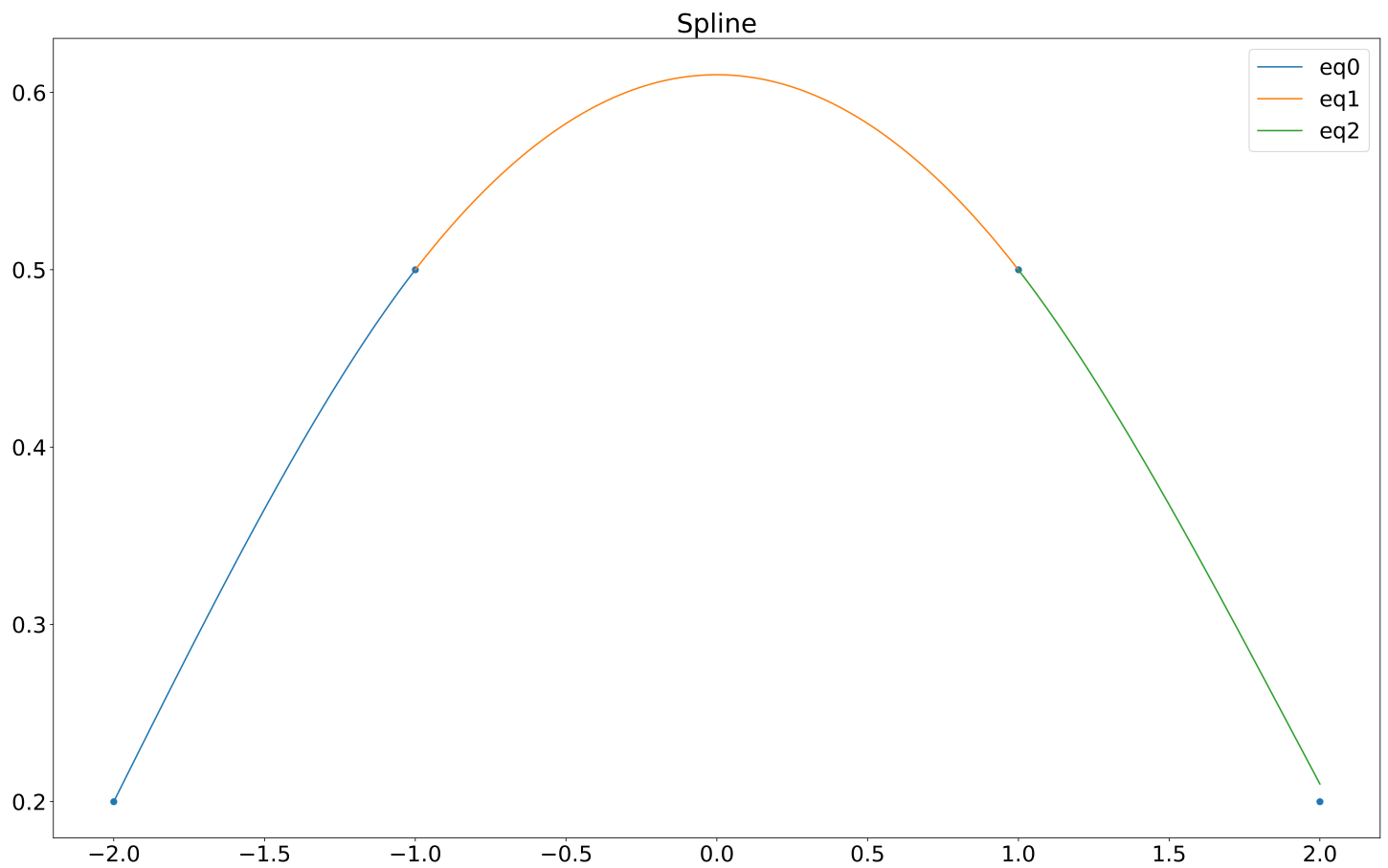


Eliton Machado da Silva

7)

Algoritmo spline

Questão 1:

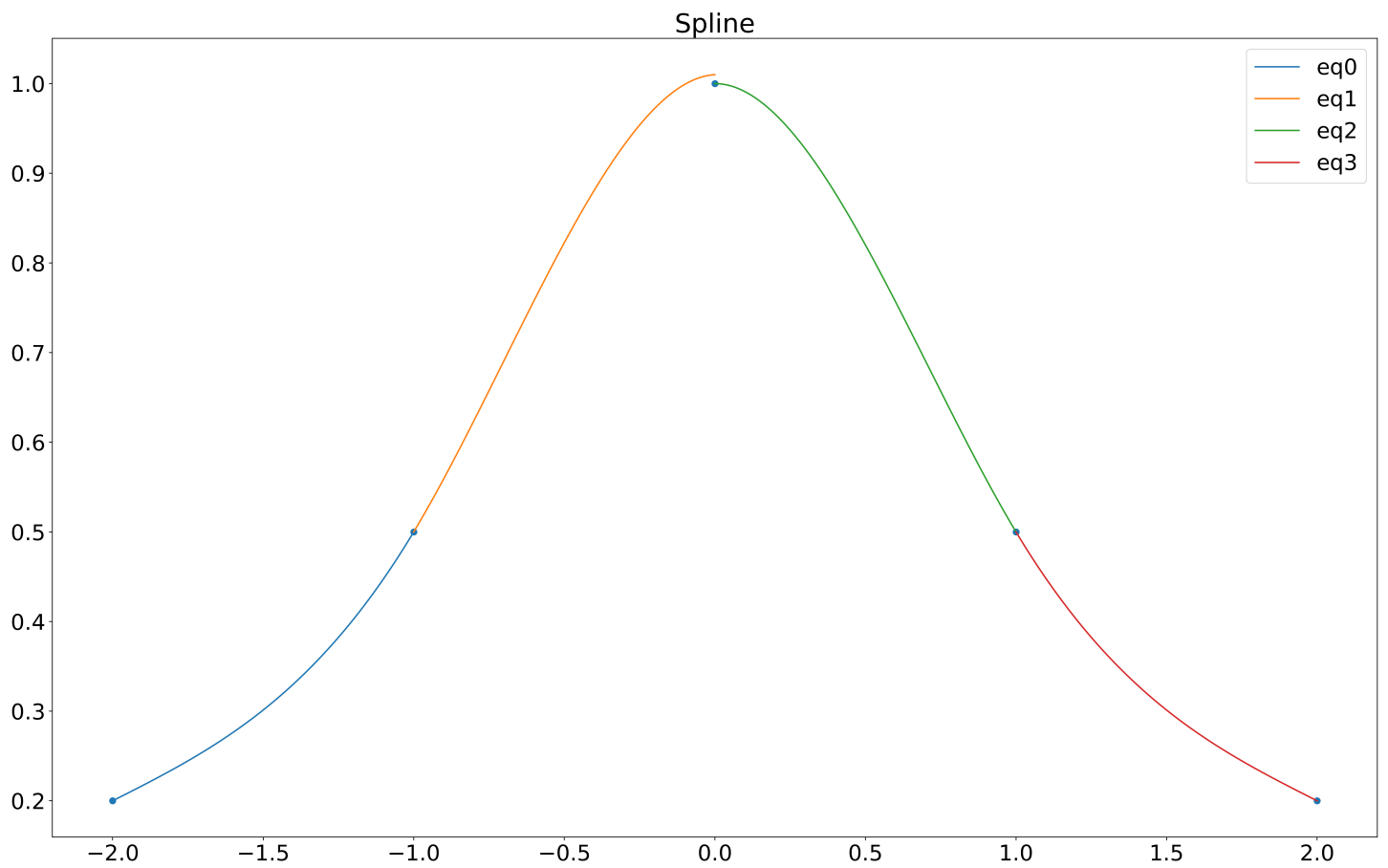


$$eq0 = 0.2 + 0.34 * (x + 2) + 0.00 * (x + 2) ** 2 - 0.04 * (x + 2) ** 3$$

$$eq1 = 0.5 + 0.22 * (x + 1) - 0.11 * (x + 1) ** 2 - 0.00 * (x + 1) ** 3$$

$$eq2 = 0.5 - 0.22 * (x - 1) - 0.11 * (x - 1) ** 2 + 0.04 * (x - 1) ** 3$$

Questão 2:



$$eq0 = 0.2 + 0.17 * (x + 2) + 0.00 * (x + 2) ** 2 + 0.13 * (x + 2) ** 3$$

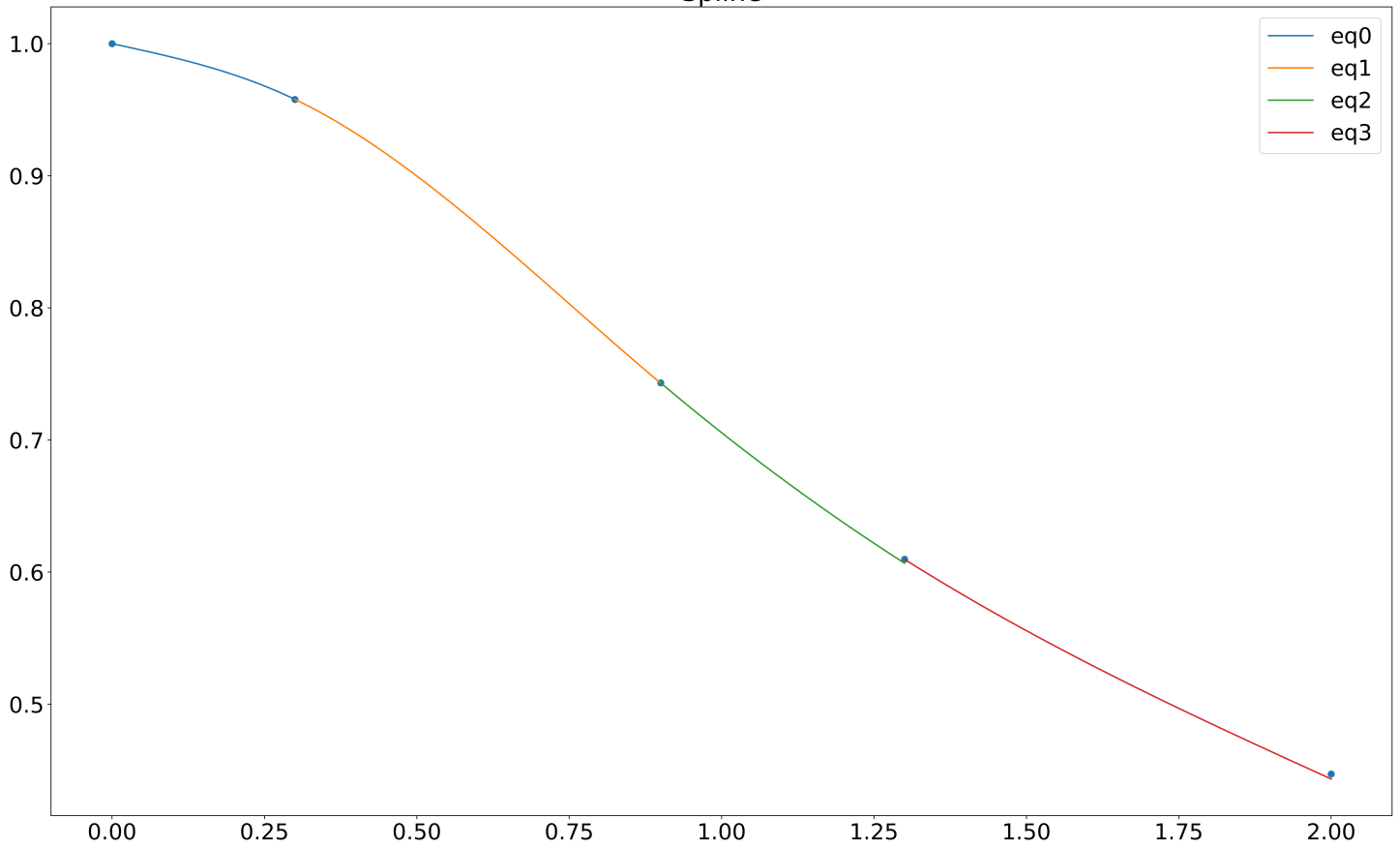
$$eq1 = 0.5 + 0.56 * (x + 1) + 0.39 * (x + 1) ** 2 - 0.44 * (x + 1) ** 3$$

$$eq2 = 1.0 + 0.00 * (x + 0) - 0.94 * (x + 0) ** 2 + 0.44 * (x + 0) ** 3$$

$$eq3 = 0.5 - 0.56 * (x - 1) + 0.39 * (x - 1) ** 2 - 0.13 * (x - 1) ** 3$$

Questão 3:

Spline



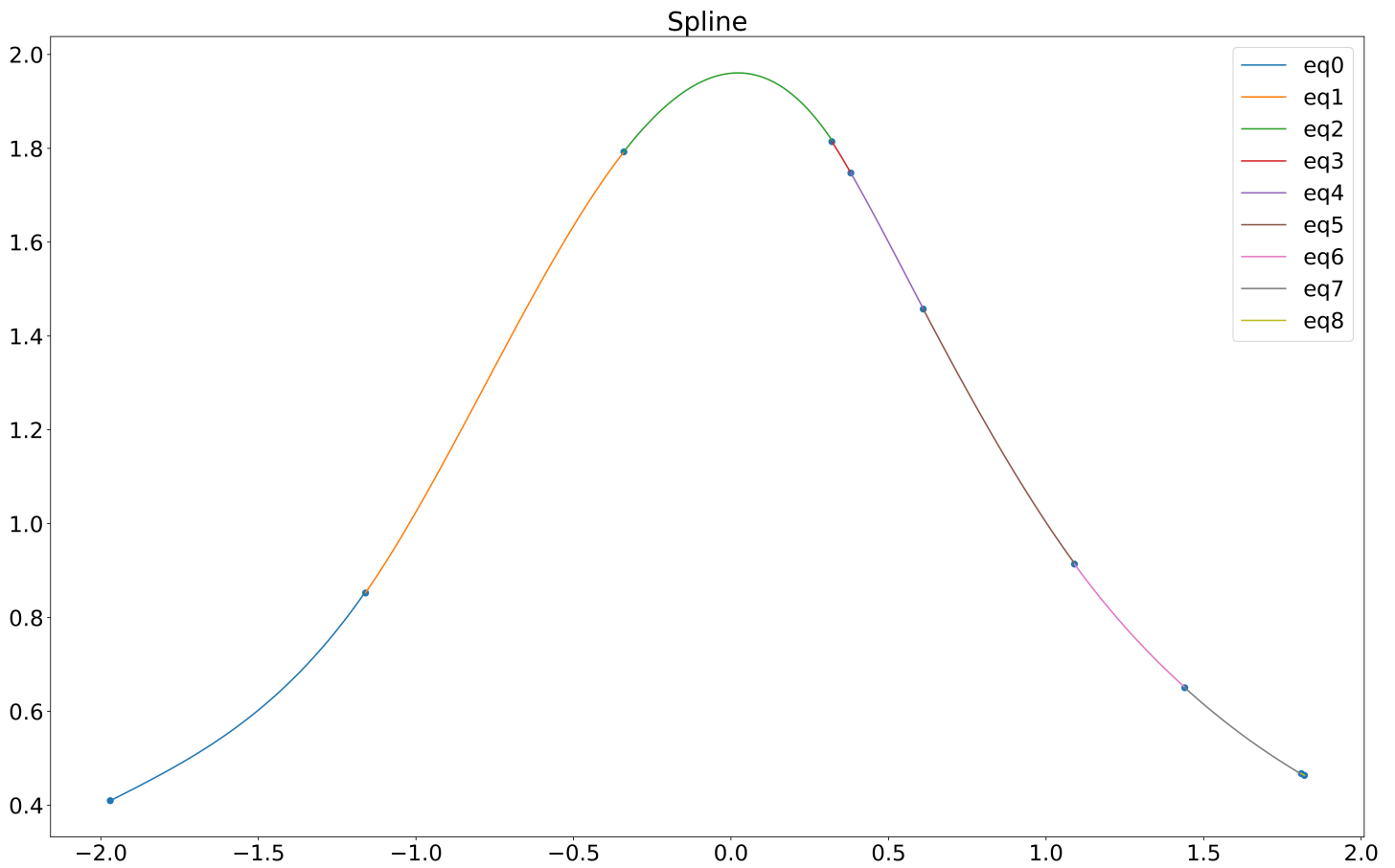
$$eq0 = 1.0 - 0.10 * (x + 0) + 0.00 * (x + 0) ** 2 - 0.45 * (x + 0) ** 3$$

$$eq1 = 0.9578262852211513 - 0.22 * (x - 0.3) - 0.41 * (x - 0.3) ** 2 + 0.30 * (x - 0.3) ** 3$$

$$eq2 = 0.7432941462471663 - 0.39 * (x - 0.9) + 0.13 * (x - 0.9) ** 2 - 0.02 * (x - 0.9) ** 3$$

$$eq3 = 0.6097107608496923 - 0.29 * (x - 1.3) + 0.11 * (x - 1.3) ** 2 - 0.05 * (x - 1.3) ** 3$$

Questão 4:



$$eq0 = 0.4097604949906779 + 0.34 * (x + 1.97) + 0.00 * (x + 1.97) ** 2 + 0.32 * (x + 1.97) ** 3$$

$$eq1 = 0.8526603001364256 + 0.97 * (x + 1.16) + 0.78 * (x + 1.16) ** 2 - 0.69 * (x + 1.16) ** 3$$

$$eq2 = 1.7927572606669058 + 0.86 * (x + 0.34) - 0.91 * (x + 0.34) ** 2 - 0.51 * (x + 0.34) ** 3$$

$$eq3 = 1.8142235123367199 - 1.02 * (x - 0.32) - 1.93 * (x - 0.32) ** 2 + 7.09 * (x - 0.32) ** 3$$

$$eq4 = 1.7476406850751485 - 1.17 * (x - 0.38) - 0.66 * (x - 0.38) ** 2 + 1.23 * (x - 0.38) ** 3$$

$$eq5 = 1.4576197070184387 - 1.28 * (x - 0.61) + 0.19 * (x - 0.61) ** 2 + 0.26 * (x - 0.61) ** 3$$

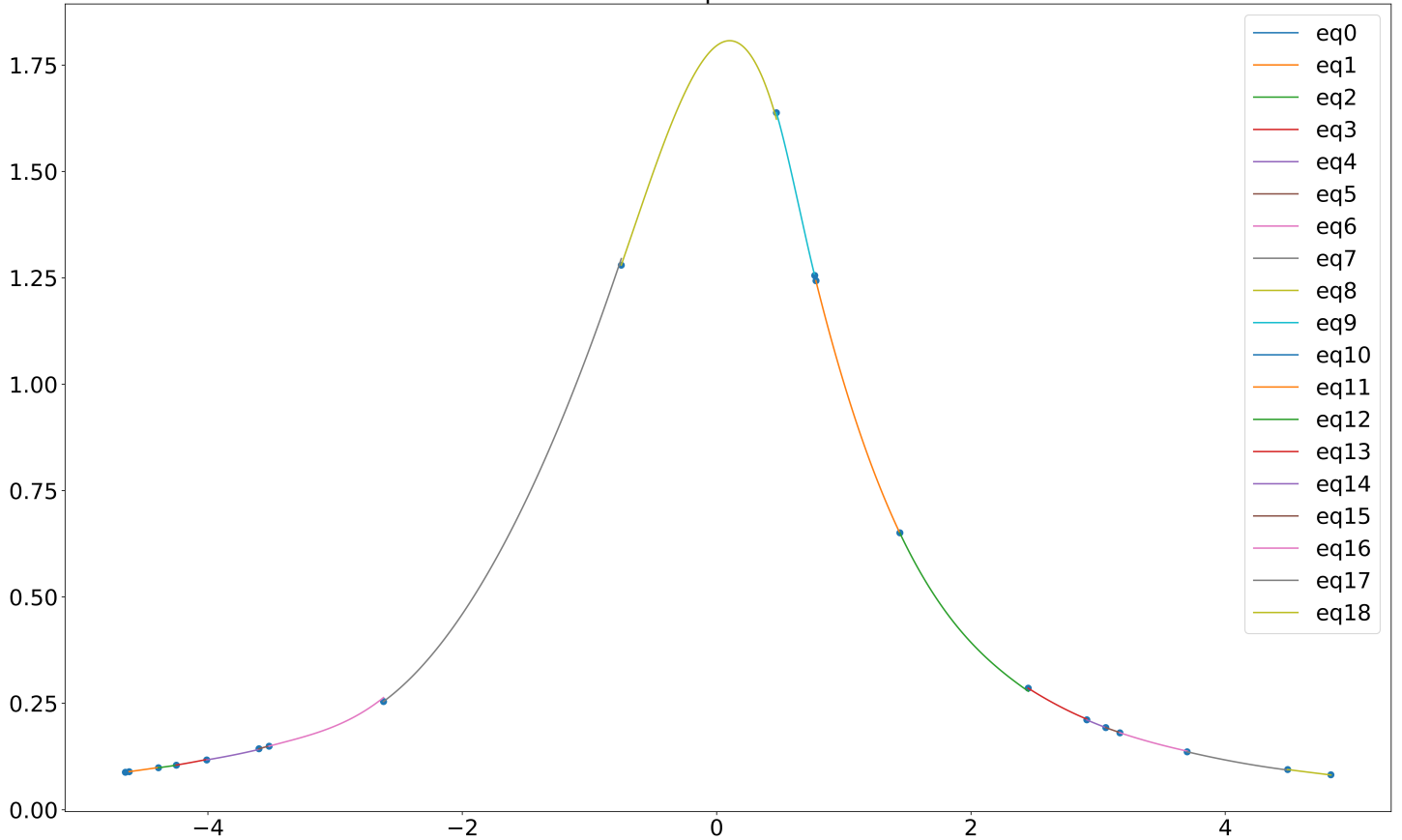
$$eq6 = 0.9140350075407887 - 0.92 * (x - 1.09) + 0.56 * (x - 1.09) ** 2 - 0.21 * (x - 1.09) ** 3$$

$$eq7 = 0.6507027589796981 - 0.61 * (x - 1.44) + 0.34 * (x - 1.44) ** 2 - 0.10 * (x - 1.44) ** 3$$

$$eq8 = 0.4677159093566568 - 0.40 * (x - 1.81) + 0.23 * (x - 1.81) ** 2 - 7.73 * (x - 1.81) ** 3$$

Questão 5:

Spline



$$eq0 = 0.08840755884628135 + 0.04 * (x + 4.65) + 0.00 * (x + 4.65) ** 2 + 0.13 * (x + 4.65) ** 3$$

$$eq1 = 0.0895078856447253 + 0.04 * (x + 4.62) + 0.01 * (x + 4.62) ** 2 + 0.00 * (x + 4.62) ** 3$$

$$eq2 = 0.09865776115942602 + 0.04 * (x + 4.39) + 0.01 * (x + 4.39) ** 2 + 0.01 * (x + 4.39) ** 3$$

$$eq3 = 0.10491803278688525 + 0.05 * (x + 4.25) + 0.02 * (x + 4.25) ** 2 + 0.00 * (x + 4.25) ** 3$$

$$eq4 = 0.1170953331654967 + 0.05 * (x + 4.01) + 0.02 * (x + 4.01) ** 2 + 0.01 * (x + 4.01) ** 3$$

$$eq5 = 0.14326647564469913 + 0.08 * (x + 3.6) + 0.03 * (x + 3.6) ** 2 - 0.23 * (x + 3.6) ** 3$$

$$eq6 = 0.14936073604970726 + 0.08 * (x + 3.52) - 0.02 * (x + 3.52) ** 2 + 0.08 * (x + 3.52) ** 3$$

$$eq7 = 0.2543105640608311 + 0.22 * (x + 2.62) + 0.18 * (x + 2.62) ** 2 - 0.00 * (x + 2.62) ** 3$$

$$eq8 = 1.28 + 0.86 * (x + 0.75) + 0.16 * (x + 0.75) ** 2 - 0.52 * (x + 0.75) ** 3$$

$$eq9 = 1.638135801457941 - 1.04 * (x - 0.47) - 1.73 * (x - 0.47) ** 2 + 3.19 * (x - 0.47) ** 3$$

$$eq10 = 1.2555715989704312 - 1.22 * (x - 0.77) + 1.14 * (x - 0.77) ** 2 - 20.99 * (x - 0.77) ** 3$$

$$eq11 = 1.2434717731907485 - 1.20 * (x - 0.78) + 0.51 * (x - 0.78) ** 2 - 0.08 * (x -$$

$$0.78) * *3$$

$$eq12 = 0.6507027589796981 - 0.63 * (x - 1.44) + 0.36 * (x - 1.44) * *2 - 0.10 * (x - 1.44) * *3$$

$$eq13 = 0.2856122813280971 - 0.19 * (x - 2.45) + 0.07 * (x - 2.45) * *2 - 0.00 * (x - 2.45) * *3$$

$$eq14 = 0.21123562277542482 - 0.13 * (x - 2.91) + 0.07 * (x - 2.91) * *2 - 0.05 * (x - 2.91) * *3$$

$$eq15 = 0.19298313327415184 - 0.11 * (x - 3.06) + 0.05 * (x - 3.06) * *2 - 0.01 * (x - 3.06) * *3$$

$$eq16 = 0.18101349455601914 - 0.10 * (x - 3.17) + 0.04 * (x - 3.17) * *2 - 0.01 * (x - 3.17) * *3$$

$$eq17 = 0.13614703880190604 - 0.07 * (x - 3.7) + 0.02 * (x - 3.7) * *2 - 0.00 * (x - 3.7) * *3$$

$$eq18 = 0.09451751173198612 - 0.04 * (x - 4.49) + 0.01 * (x - 4.49) * *2 - 0.01 * (x - 4.49) * *3$$