$$\frac{1}{\pi} \left( \frac{A_1}{\gamma_1 \left(1 + \left(\frac{x - \mu_1}{\gamma_1}\right)^2\right)} + \dots + \frac{A_n}{\gamma_n \left(1 + \left(\frac{x - \mu_n}{\gamma_n}\right)^2\right)} \right)$$