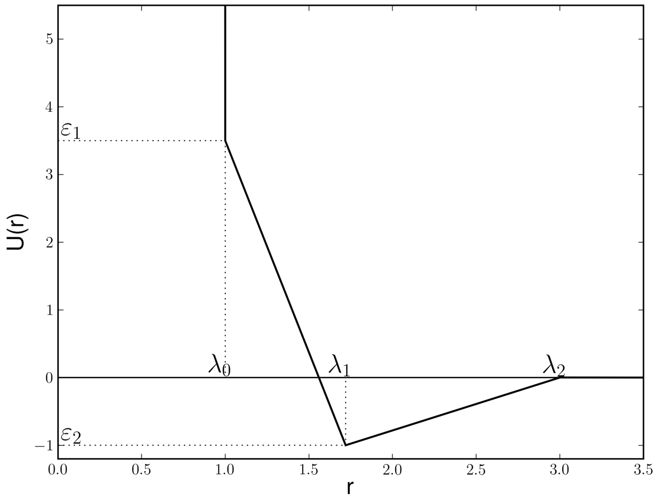

Figure 1: The Jagla ramp potential

In my code I have chosen to use the formulation of the Jagla potential given by [1]. The equations for Fig. (1) are

$$U(r) = \begin{cases} \infty, & r < \lambda_0, \\ m_1 r + b_1, & \lambda_0 < r \leq \lambda_1, \\ m_2 r + b_2, & \lambda_1 < r \leq \lambda_2, \\ 0, & r > \lambda_2, \end{cases} \tag{1}$$

where

$$m_1 = \frac{\varepsilon_2 - \varepsilon_1}{\lambda_1 - \lambda_0}, \tag{2}$$

$$b_1 = \varepsilon_2 - \frac{\varepsilon_2 - \varepsilon_1}{\lambda_1 - \lambda_0}\lambda_1, \tag{3}$$

$$m_2 = \frac{-\varepsilon_2}{\lambda_2 - \lambda_1}, \tag{4}$$

$$b_2 = \varepsilon_2 + \frac{\varepsilon_2}{\lambda_2 - \lambda_1}\lambda_1. \tag{5}$$

This defintion maps directly onto the parameters from [2] in the following way:

$$
\begin{align}
\lambda_0 &= a, \tag{6}\\
\lambda_1 &= b, \tag{7}\\
\lambda_2 &= c, \tag{8}\\
\varepsilon_1 &= U_R, \tag{9}\\
\varepsilon_2 &= U_A, \tag{10}\\
& \tag{11}
\end{align}
$$

Furthermore, the parameters map to the original definition of the potential given in [3] with:

$$
\begin{align}
\gamma &= -\frac{\lambda_2 - \lambda_0}{\lambda_2 - \lambda_1}\varepsilon_2, \tag{12}\\
\epsilon &= -\frac{\lambda_0 - \lambda_2}{\lambda_1 - \lambda_2}\varepsilon_2 + \varepsilon_1, \tag{13}\\
r_0 &= \lambda_0, \tag{14}\\
r_1 &= \lambda_1, \tag{15}\\
r_2 &= \lambda_2. \tag{16}\\
& \tag{17}
\end{align}
$$

References

[1] Benavides, A.; Cervantes, L.; Torres, J. *Journal of Physical Chemistry C* **2007**, *111*, 16006–16012.

[2] Buldyrev, S.; Kumar, P.; Debenedetti, P.; Rossky, P.; Stanley, H. *Proceedings of the National Academy of Sciences* **2007**, *104*(51), 20177.

[3] Jagla, E. *Physical Review E* **2001**, *63*(6), 61501.