

RELAXATION TIME CORRELATION

The relaxation time correlation (τ_{relax}) is computed in the following way:[1, 2]

$$\langle \mathbf{R}(t) \cdot \mathbf{R}(0) \rangle = \frac{\langle \mathbf{R}_i(t + \tau) \cdot \mathbf{R}_i(\tau) \rangle_{i,\tau} - \langle \mathbf{R}_i \rangle_{i,\tau}^2}{\langle \mathbf{R}_i(0) \cdot \mathbf{R}_i(0) \rangle_{i,\tau} - \langle \mathbf{R}_i \rangle_{i,\tau}^2} \approx \exp\left(-\frac{t}{\tau_{relax}}\right) \quad (1)$$

where \mathbf{R}_i is the end-to-end vector (monomer to monomer) of polymer i at a time τ .

REFERENCES

- [1] J. Naghizadeh and J. Kovac, [Phys. Rev. Lett. **59**, 1710 \(1987\)](#).
- [2] M. Rubinstein and R. H. Colby, *Polymer Physics* (Oxford University Press, 2003) Chap. 2, pp. 51–60.