# Erratum for: Franck-Condon factors by counting perfect matchings of graphs with loops

Nicolás Quesada

Equation before Eq. (47) of Ref. [1] reads

$$\langle \boldsymbol{n}_{\text{final}} | \boldsymbol{m}_{\text{in}} \rangle = \langle \boldsymbol{n} | \hat{\mathcal{U}}(\boldsymbol{O}_{\boldsymbol{L}}^{\boldsymbol{T}}) \hat{\mathcal{S}}(\log(\boldsymbol{l})) \mathcal{U}(\boldsymbol{O}_R) \hat{\mathcal{D}}(\boldsymbol{d}/\sqrt{2}) | \boldsymbol{m} \rangle. \tag{1}$$

It should read

$$\langle \boldsymbol{n}_{\text{final}} | \boldsymbol{m}_{\text{in}} \rangle = \langle \boldsymbol{n} | \hat{\mathcal{D}}(\boldsymbol{d}/\sqrt{2}) \hat{\mathcal{U}}(\boldsymbol{O}_{\boldsymbol{L}}^{\boldsymbol{T}}) \hat{\mathcal{S}}(\log(\boldsymbol{l})) \mathcal{U}(\boldsymbol{O}_R) | \boldsymbol{m} \rangle. \tag{2}$$

This also implies that one does not need to take the Hermitian adjoint in the same equation to move the displacement to the left-hand side of the inner product. Thus this equation when amended with the correction presented here is already in the form of equation (47) albeit with the indices $\boldsymbol{m}$ and $\boldsymbol{n}$ switched.

[1] Nicolás Quesada. Franck-condon factors by counting perfect matchings of graphs with loops. *J. Chem. Phys.*, 150(16):164113, 2019. doi: 10.1063/1.5086387. URL https://doi.org/10.1063/1.5086387.