

**Subject:** Paper for DPD smearing function

**Date:** Tuesday, April 29, 2025 at 2:25:38 PM Eastern Daylight Time

**From:** Lequieu, Joshua

**To:** Doug Tree

Hi Doug,

The key paper I would start with is this paper and the two paragraphs following Eq 4 <https://pubs.aip.org/aip/jcp/article/141/22/224115/685757> We're looking for a new  $\Gamma$  so that  $u_{\text{eff}}$  is the DPD potential.

This is also described in Glenn's 2023 book in Sec 2.1.3 (see in particular Eq 2.56), though there's lots of other things going on in this chapter and so I think that it is less clear.

Best,  
Josh