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Magn. Reson. Discuss., author comment AC1
https://doi.org/10.5194/mr-2022-8-AC1, 2022

Reply on RC1

Sarah R. Sweger et al.

Author comment on "The effect of spin polarization on double electron–electron resonance (DEER) spectroscopy" by Sarah R. Sweger et al., Magn. Reson. Discuss., https://doi.org/10.5194/mr-2022-8-AC1, 2022

Thank you for the kind words and helpful feedback. Addressing your specific suggestions:

1. FT($V_{\text{inter}}(t)$, ω) has been added to the right hand side of Eq. 13 for transparency.

2. The erroneous extra β term has been removed and the parentheses placement corrected.

3. A sentence was added to Line 44 in the main text to clarify that the derivation in S1 is the 3-pulse signal while the main text will focus on 4-pulse DEER model as the results are identical.

4. A sentence was added to Line 64 to indicate the appropriate g-value can be used when necessary but for the theoretical derivation ge is utilized. The specific g-value should not impact analysis as the data are fit for k which encompasses the dipolar constant.

Regarding the movement of equations from the SI text, we have chosen not to move these sections to the main text. Our criterion for separating these sections is so that the focus of the main text is novel physical insight. Any mathematics that are known or not directly relevant to the physical insight were placed in the supplement. They are of course still accessible for those interested. We believe this organization of the content makes the main article accessible to a broad magnetic-resonance audience that may not not be deeply experienced with mathematical aspects of magnetic resonance.