

Magn. Reson. Discuss., referee comment RC1 https://doi.org/10.5194/mr-2022-9-RC1, 2022 © Author(s) 2022. This work is distributed under the Creative Commons Attribution 4.0 License.

## Comment on mr-2022-9

Anonymous Referee #1

Referee comment on "Visualization of dynamics in coupled multi-spin systems" by Jingyan Xu et al., Magn. Reson. Discuss., https://doi.org/10.5194/mr-2022-9-RC1, 2022

The authors provide a new way of visualizing density matrix components during pulse sequences in multispin system using angular momentum probability surfaces. The approach appears to be superior to the previously described DROPS method. One component of the approach involves coupling angular momenta, but it seems that the actual visualization is not very intuitive to follow. Either way, it seems the authors provide some useful examples. I am wondering whether the authors could identify cases where this approach can produce some level of intuition that would exceed the level of intuition one would get from examining the spin components directly.