Magn. Reson. Discuss.,
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Interactive comment on "Using nutation-frequency-selective pulses to reduce radio-frequency field inhomogeneity in solid-state NMR" *by* Kathrin Aebischer et al.

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*To assist the reader, it would have been helpful to add to Fig 1a "the doubly rotating frame", to 1c and 1d-e "the spin lock rotating frame".

All plots shown in Figure 1 are in the "usual rotating frame", i.e. in the frame where we rotate with the Larmor frequency around the z axis. Figure 1a shows the amplitude and 1b the modulation frequency while 1c-1e show the combined modulation in different representations (x/y) and (amplitude/phase). But they are all in the rotating frame. Therefore, we did not add the suggested labels.

*I understand that in Eq. 2 phi(t) does not contain the counter-rotator terms and therefore what is the meaning of "Therefore" on line 51. Eq. 3 assumes that w0-wfr=0.

We have rephrased this part to make this clearer and changed "Therefore, we obtain a first-order ..." to "Neglecting the counter-rotating part, we obtain a first-order ..." and also added the on-resonance condition "Assuming ω_0=ω_rf" before Eq. 3.

*Unfortunately, the color coding of the results shown in Fig 5 are not sufficient to appreciate the success of the experiments. The "blue" curve doesn't have an oscillating frequency dependence, but is rather composed of many profiles. Furthermore, the "red" lines are indistinguishable

We do not see a simple solution to this problem since we want to show all the sub spectra in a single plot. We have decided to add a Figure to the SI which shows all the spectra in a stacked way so that they can be viewed independently. We added a sentence to the caption: "To allow a more detailed view of the various sub spectra in b), we show them in a stacked way in Fig. S04 of the SI."

We would like to thank the reviewer for carefully reading the manuscript and for his suggestions and hope that these changes address the concerns of reviewer 1 adequately.

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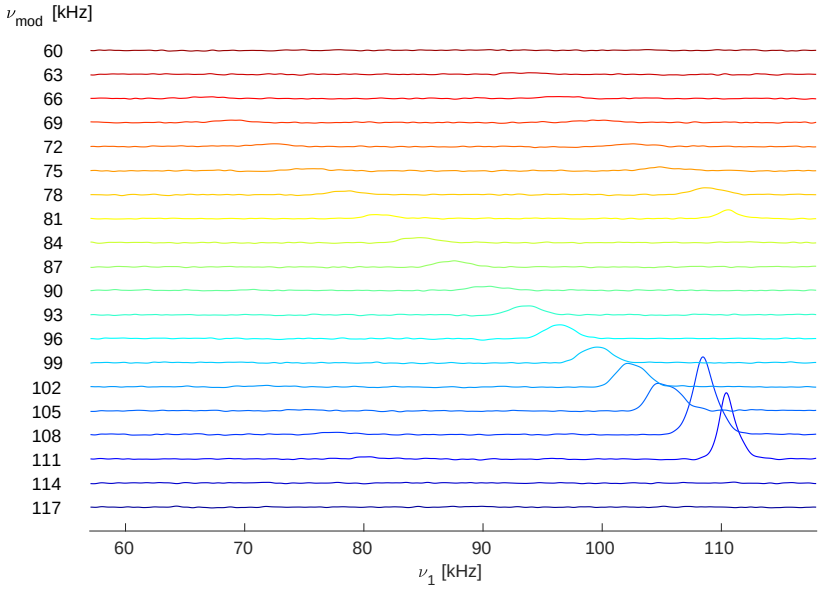

Fig. 1. New Figure S04