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Supplement of

Spectral attenuation of ocean waves in pack ice and its application in calibrating viscoelastic wave-in-ice models

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Supplemental material

An example of fitting $E(k_r, \theta)$ at a given k_r with the Gaussian distribution is shown in Figure 2(a), where θ is measured counterclockwise from the positive range-axis in the range-azimuth domain. The directional ambiguity inherent in the SAR retrievals is removed with the aid of the in-situ observed wave direction

5 (Thomson et al., 2018).

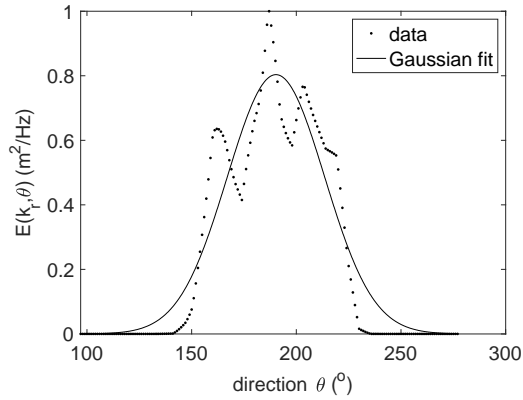


Figure S1. Demonstration of fitting the main wave direction θ_{k_r} for $k_r = 0.025\text{m}^{-1}$ by a Gaussian distribution.

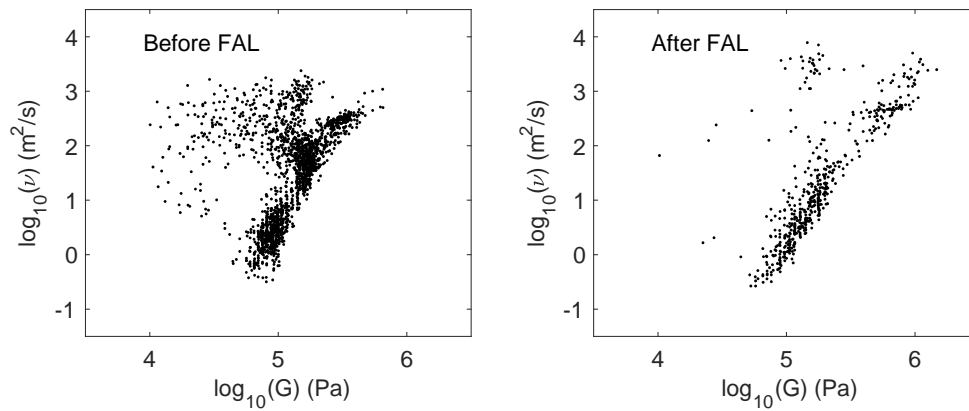
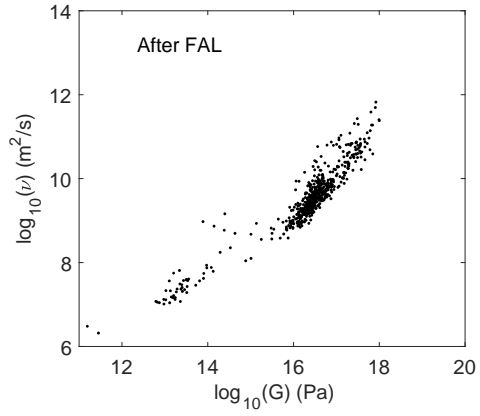
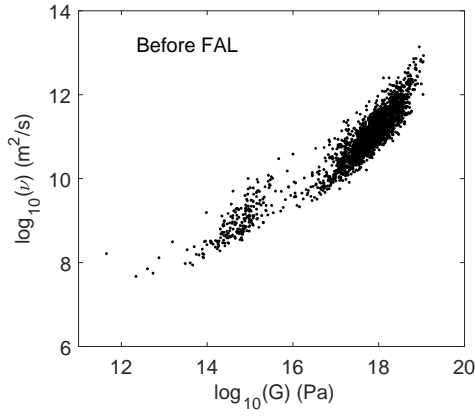


Figure S2. Scatter plots of calibrated G, ν of the WS model after filtered outliers discussed in section 4.3.



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Figure S3. Scatter plots of calibrated G, ν of the FS model.

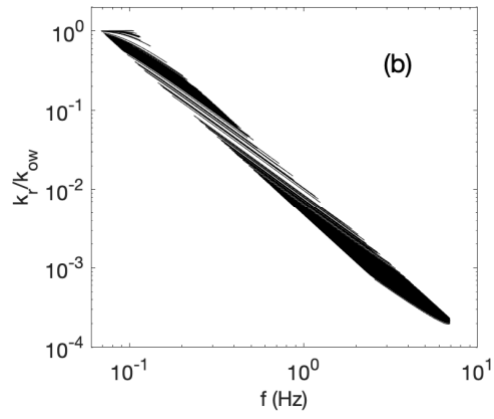
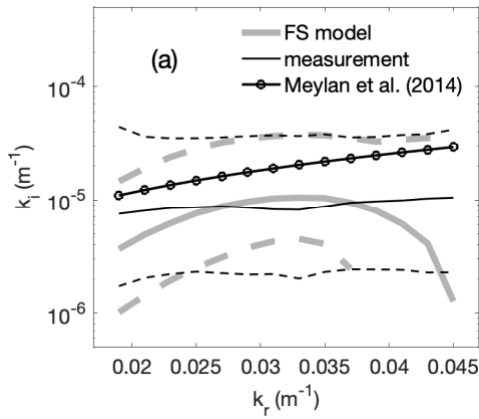
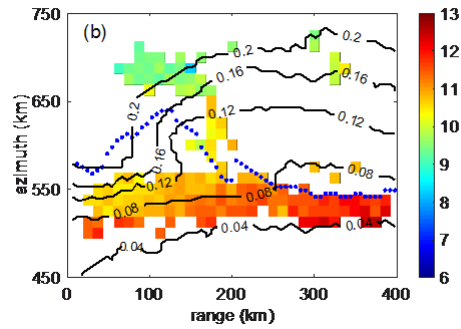
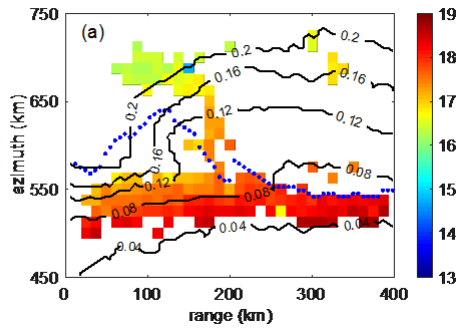


Figure S4. Similar as Figure 6 for the FS model.



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Figure S5. Similar as Figure 7 for the FS model, except blue dots is used to indicate the FAL