

# Supporting Information for "Imaging deep crustal magmatic processes in the Central Main Ethiopian Rift zone using 3-D Magnetotellurics"

J. Hübert<sup>1,2</sup>, K. Whaler<sup>1</sup>, S. Fisseha<sup>3</sup>, C. Hogg<sup>4</sup>

<sup>1</sup>School of GeoSciences, University of Edinburgh, Edinburgh, UK

<sup>2</sup>British Geological Survey, Edinburgh, UK

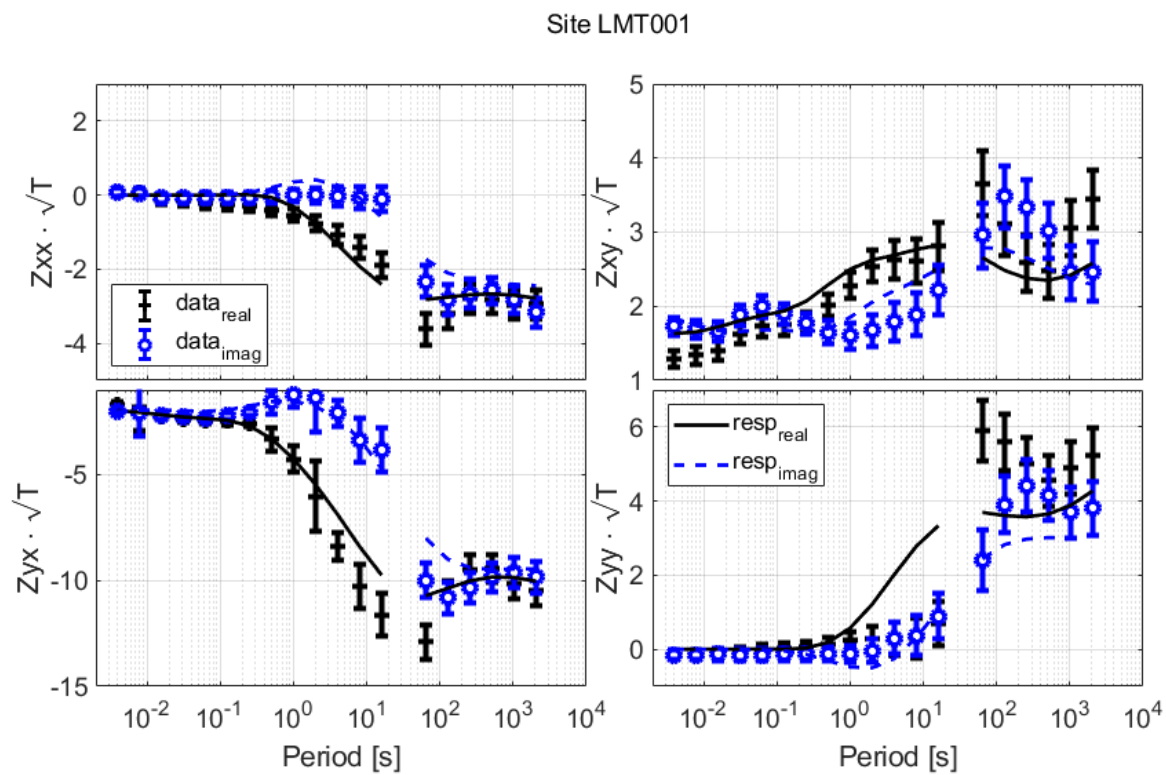
<sup>3</sup>Institute for Geophysics, Space Science and Astronomy, Addis Ababa University, Ethiopia

<sup>4</sup>Dublin Institute for Advanced Studies, Dublin, Ireland

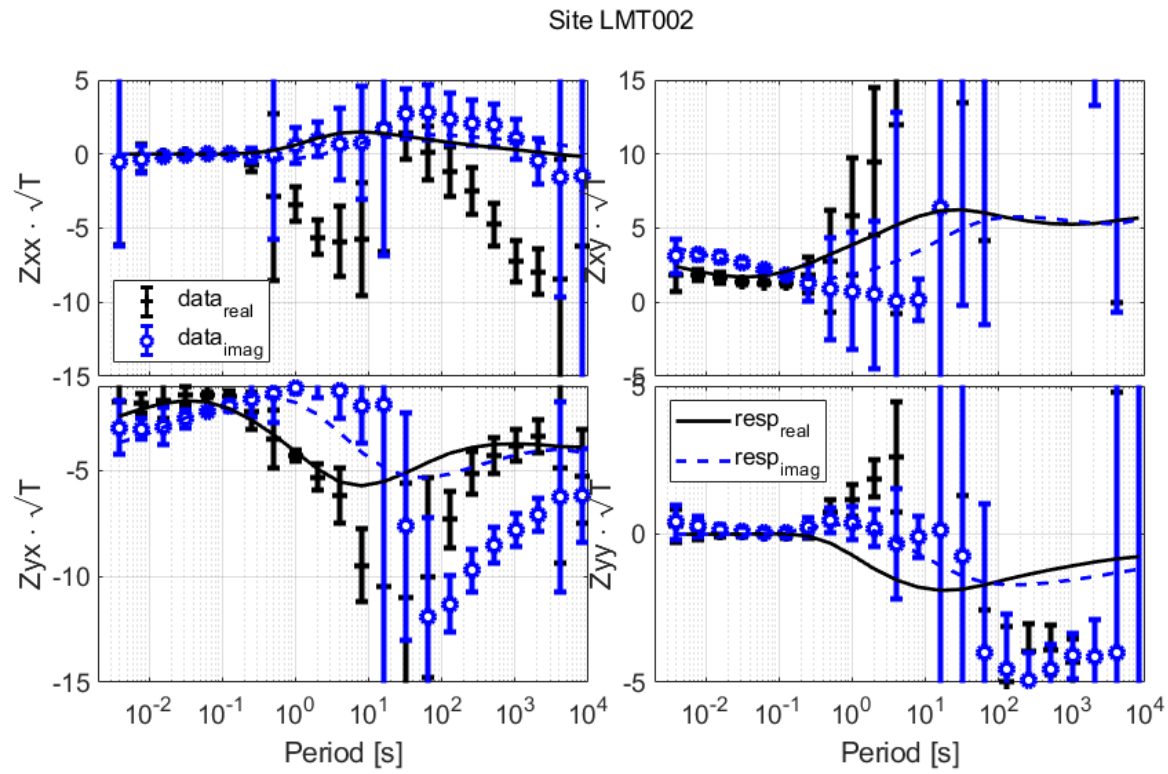
## Contents of this file

1. Map of MT site locations in the CMER.
2. Plots of data fit between measured data (including data errors) and response of the preferred inversion model.

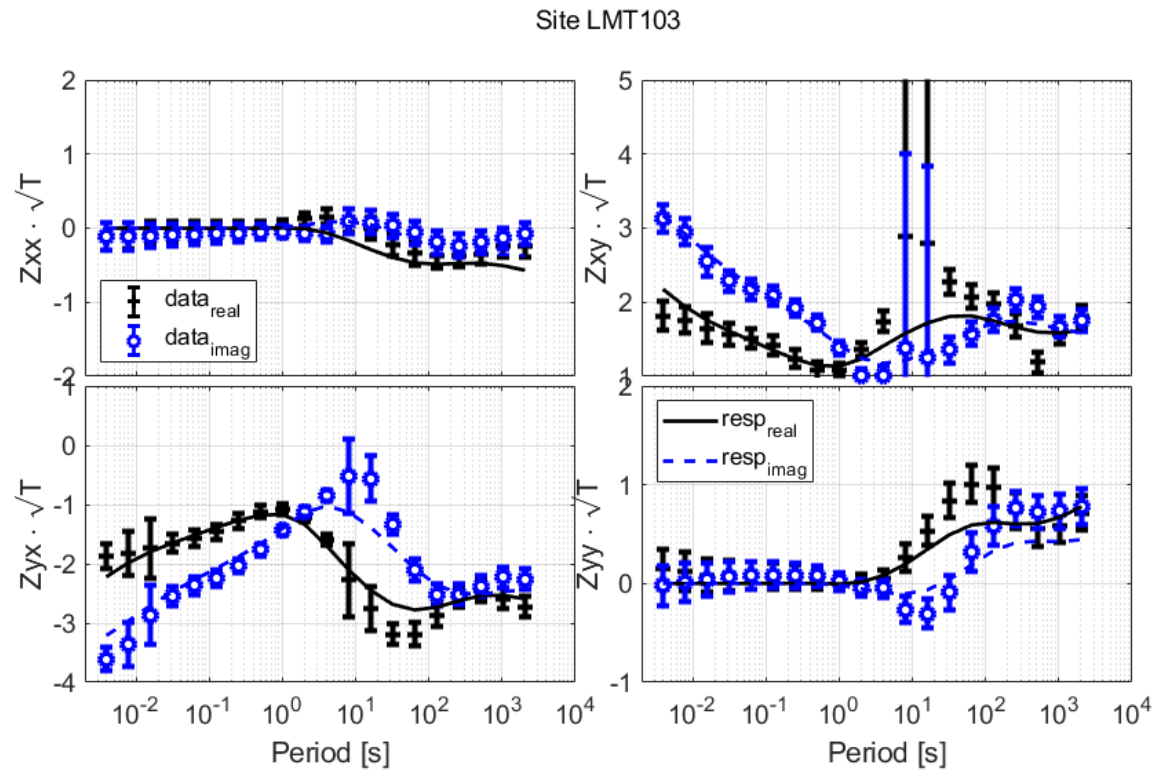

$$\vdots$$
$$\vdots$$



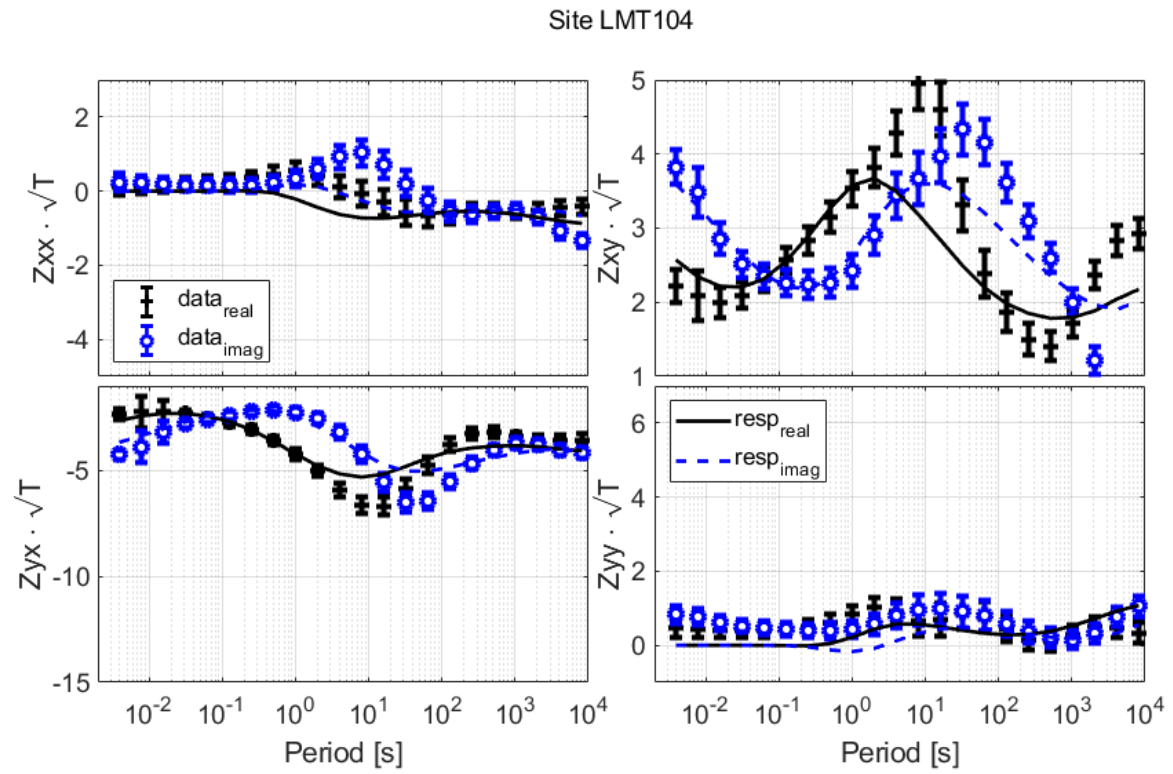
**Figure S2.** Datafit for site LMT001, impedance



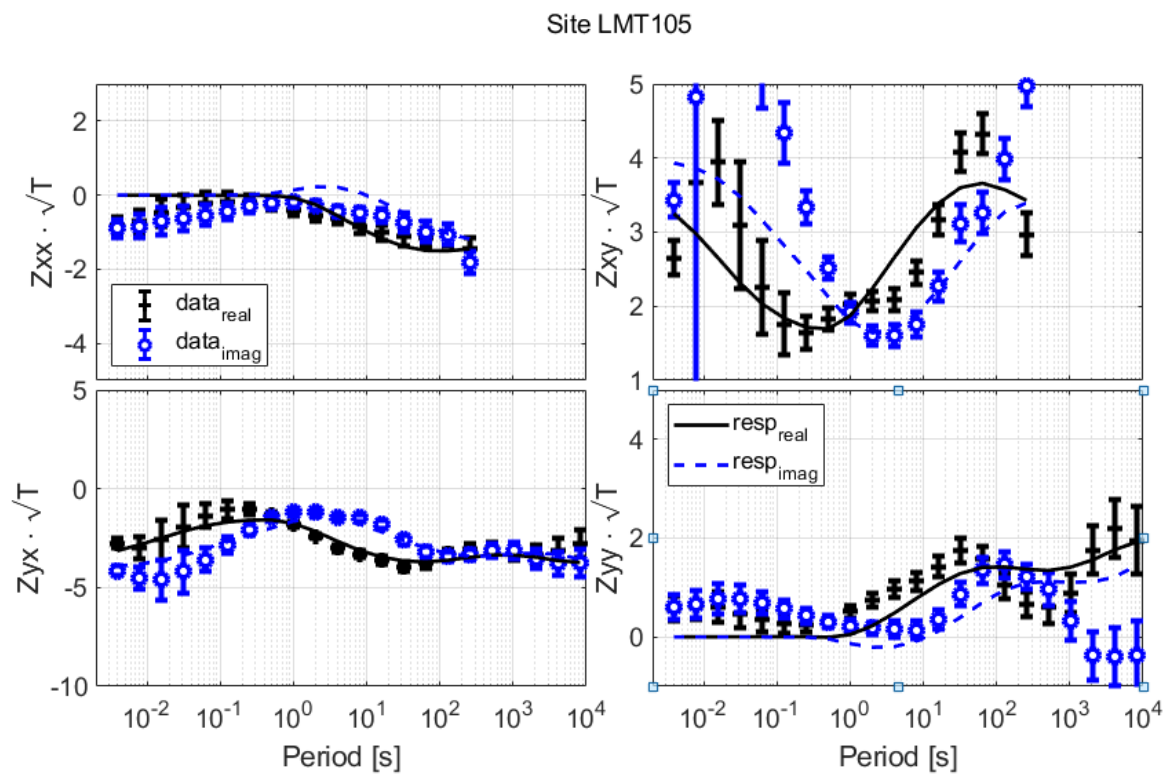
**Figure S3.** Datafit for site LMT002, impedance



**Figure S4.** Datafit for site LMT103, impedance



**Figure S5.** Datafit for site LMT104, impedance



**Figure S6.** Datafit for site LMT105, impedance

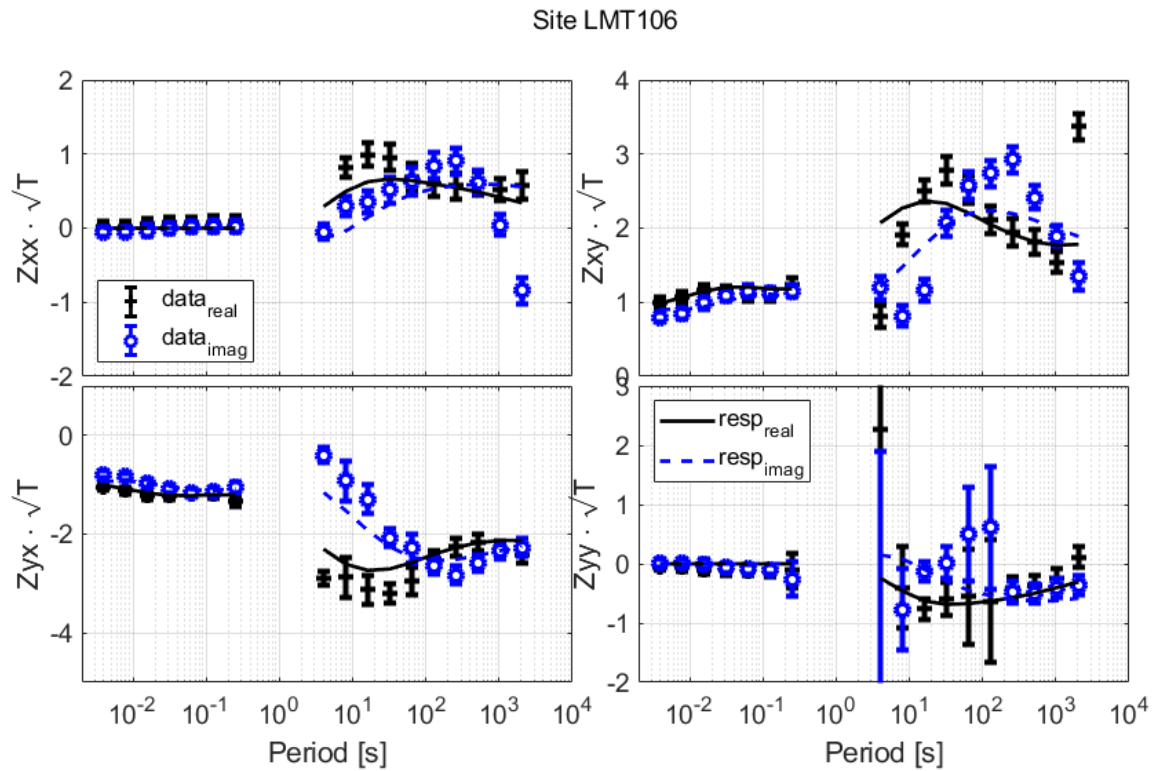
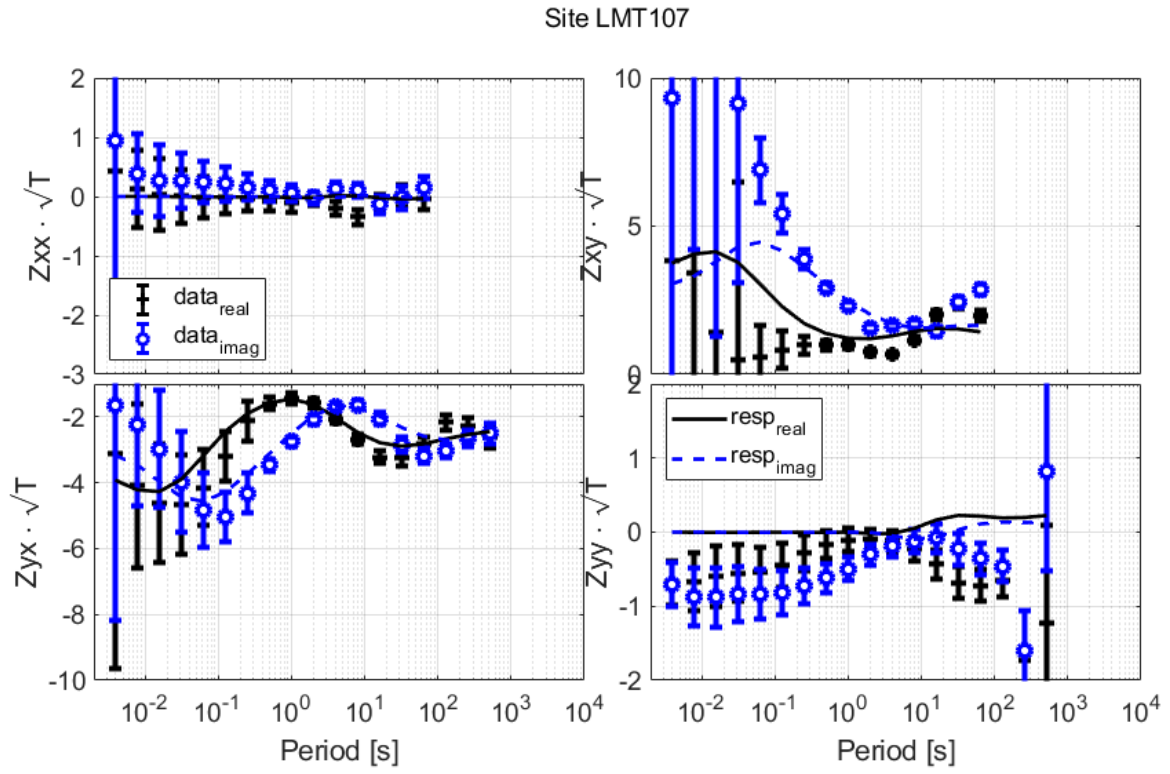
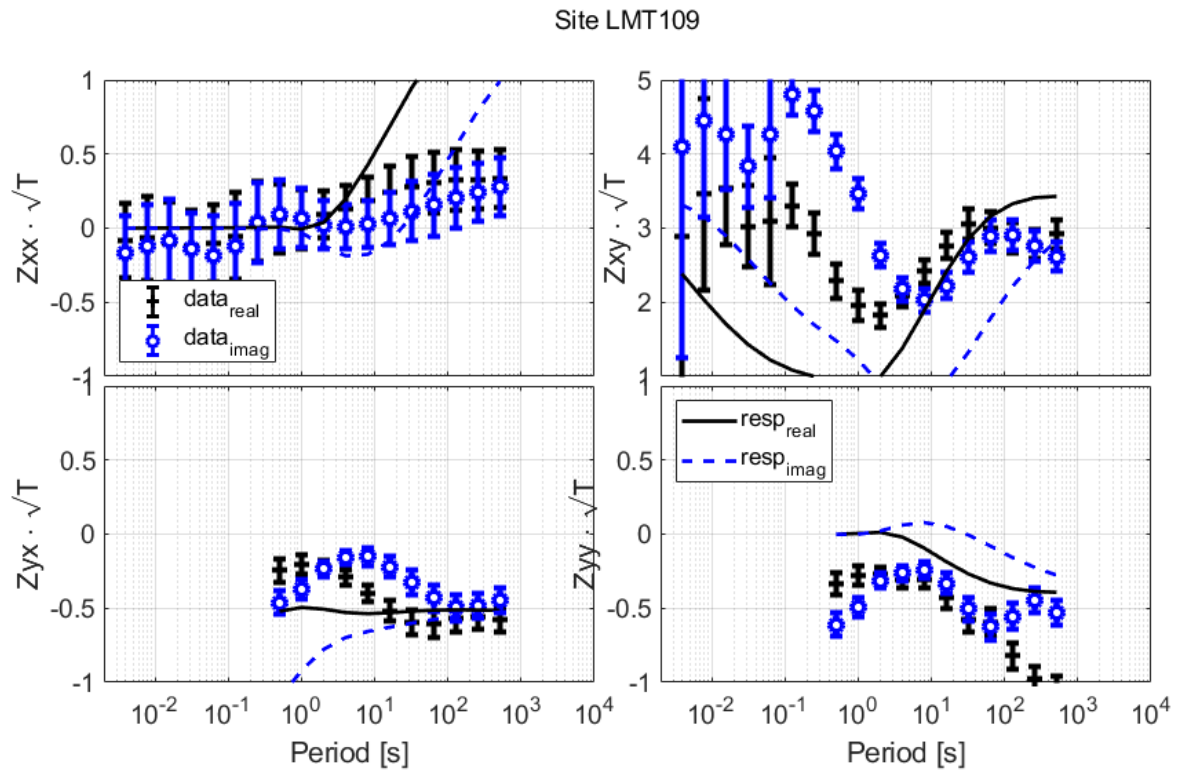


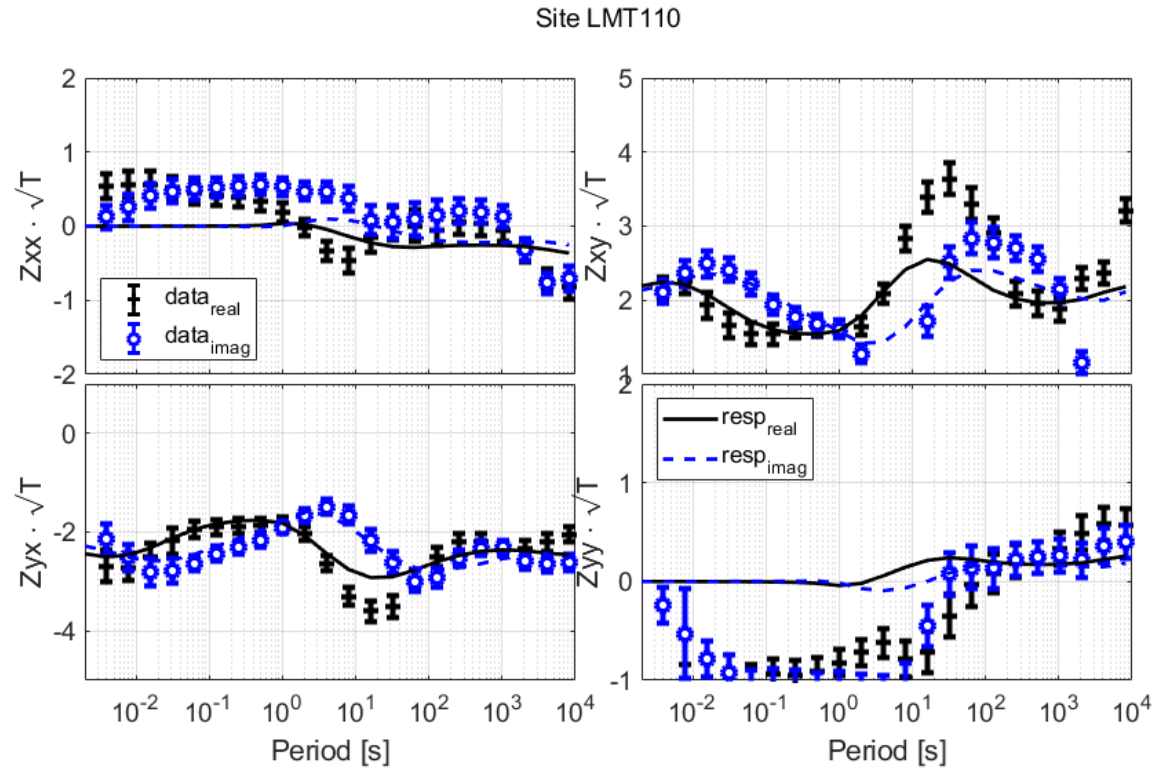
Figure S7. Datafit for site LMT106, impedance



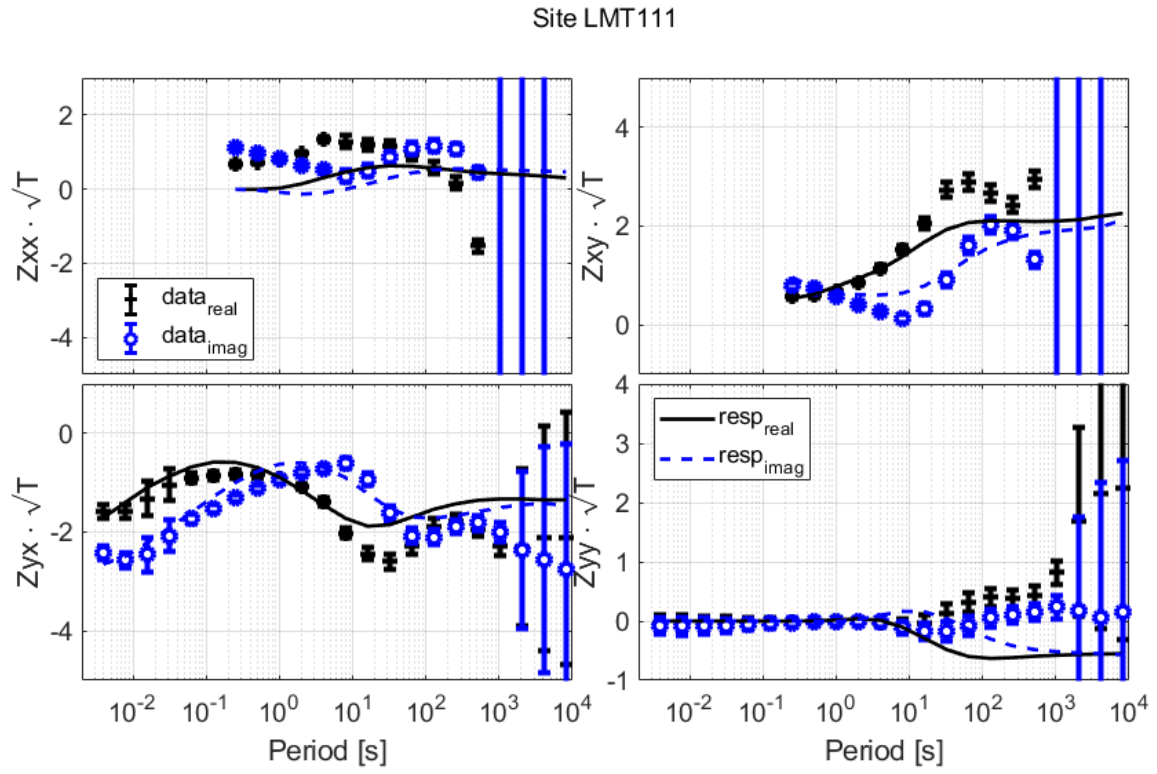
**Figure S8.** Datafit for site LMT107, impedance



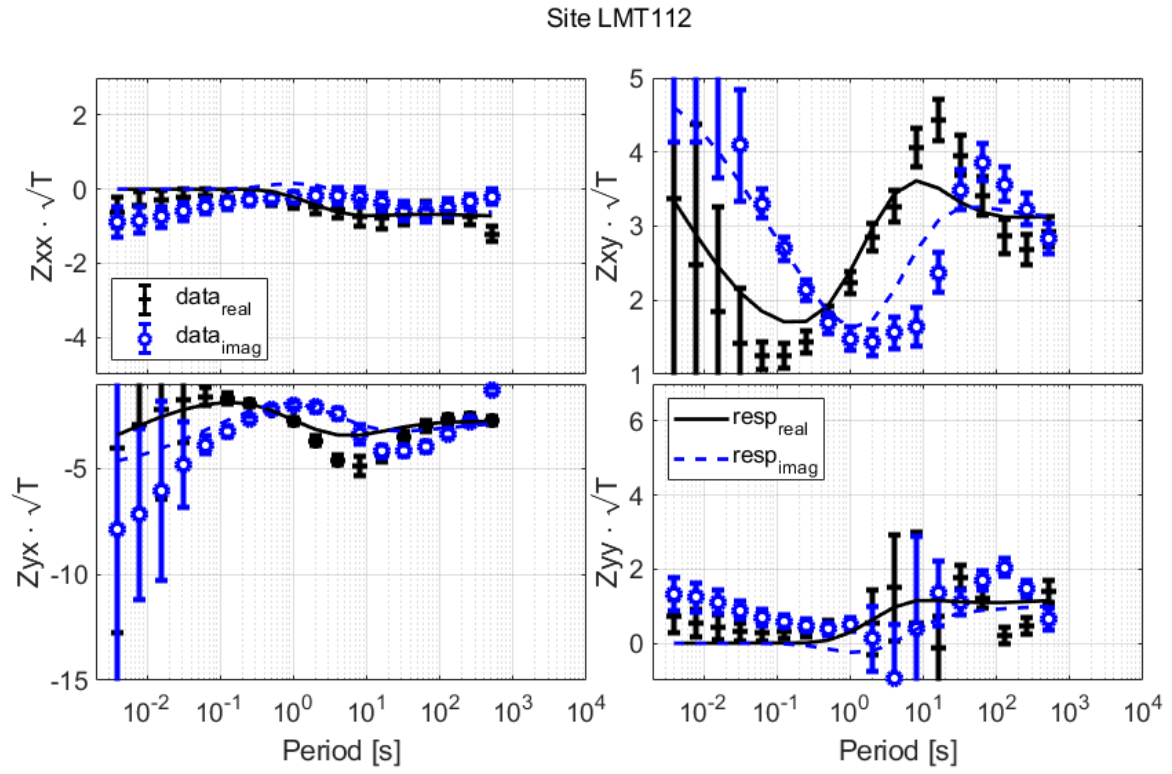
**Figure S9.** Datafit for site LMT109, impedance



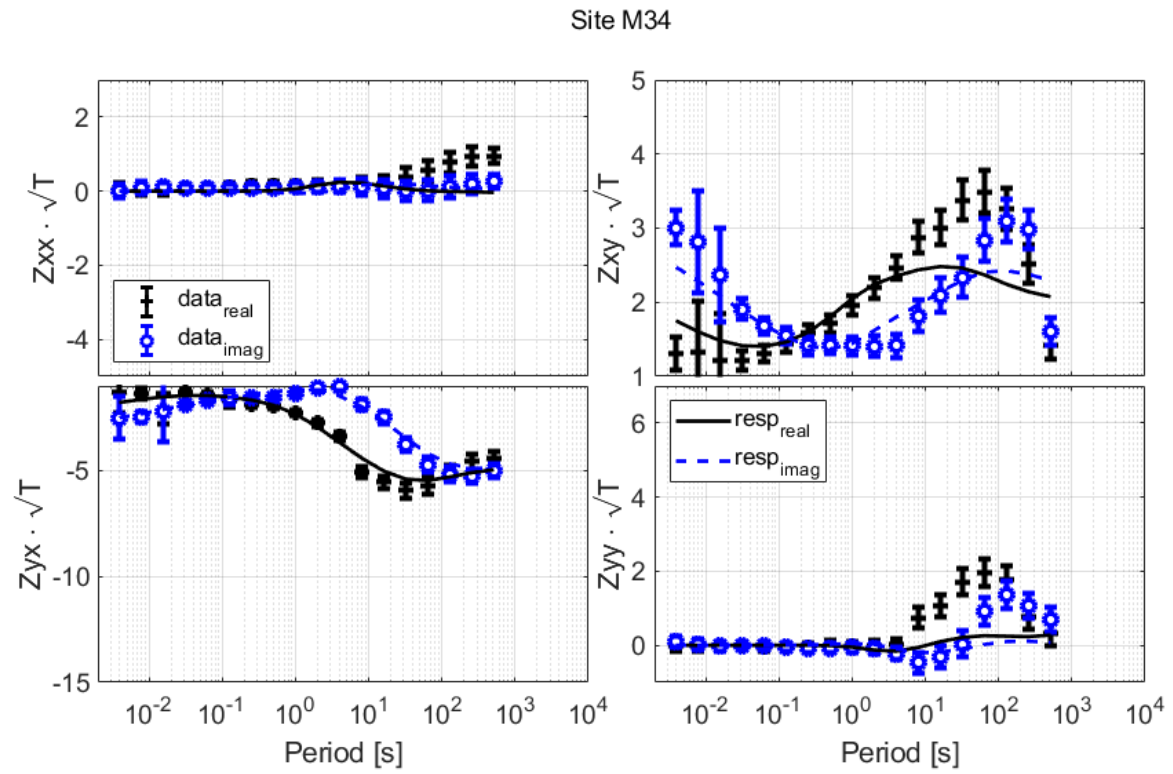
**Figure S10.** Datafit for site LMT110, impedance



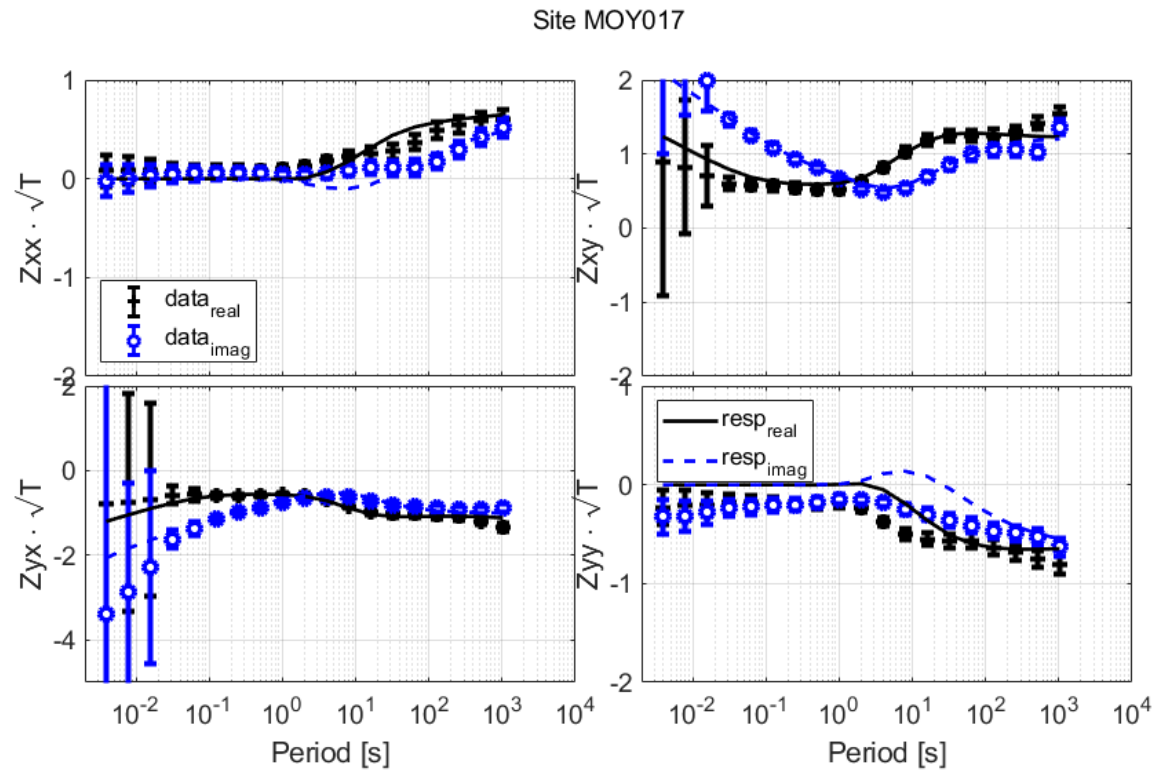
**Figure S11.** Datafit for site LMT111, impedance



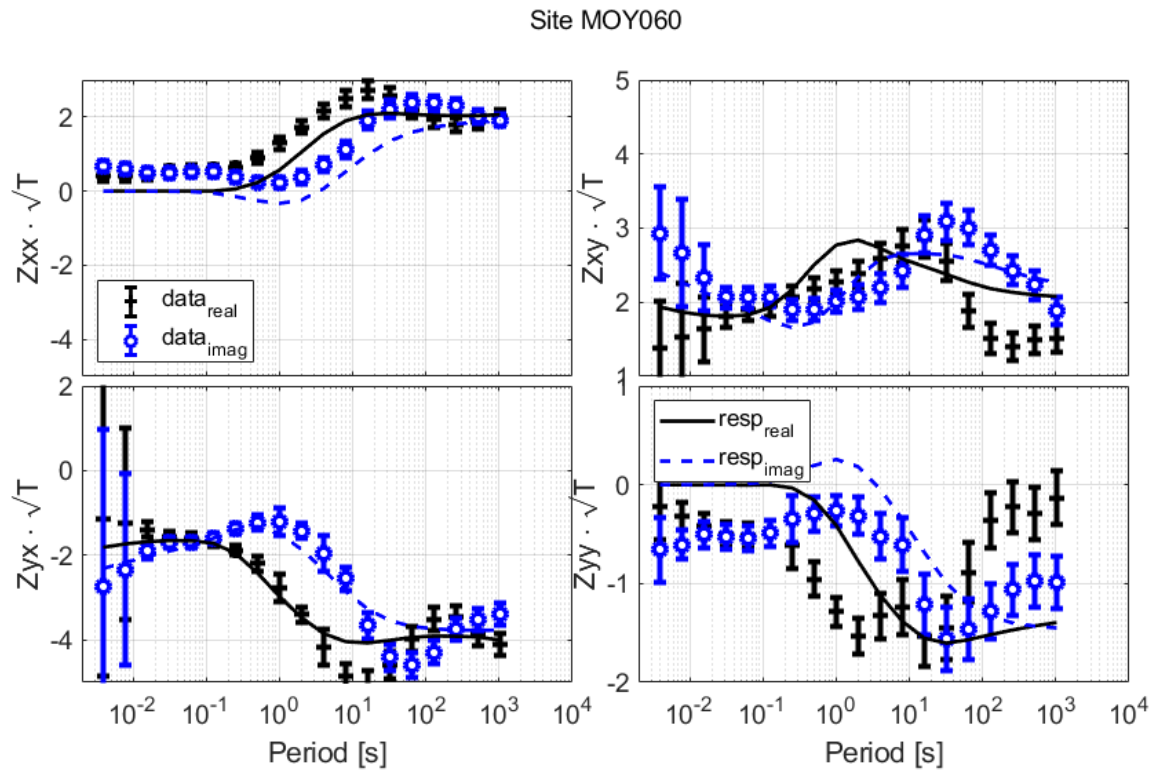
**Figure S12.** Datafit for site LMT112, impedance



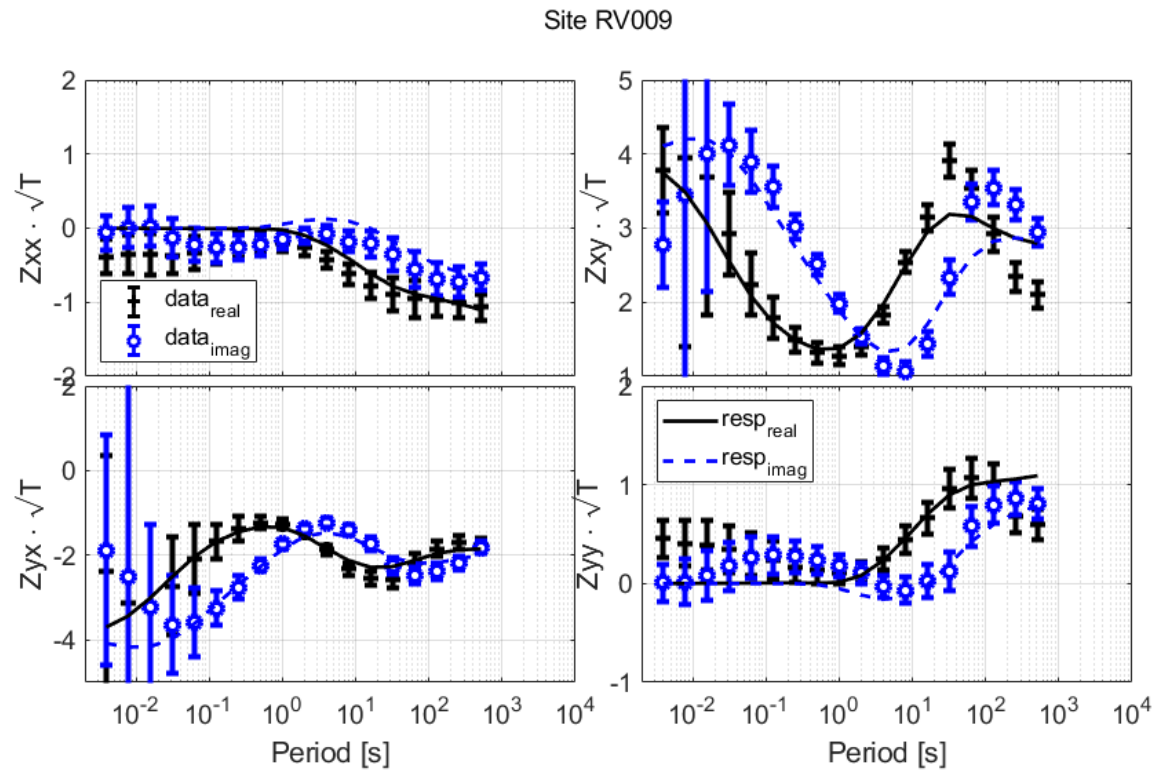
**Figure S13.** Datafit for site M34, impedance



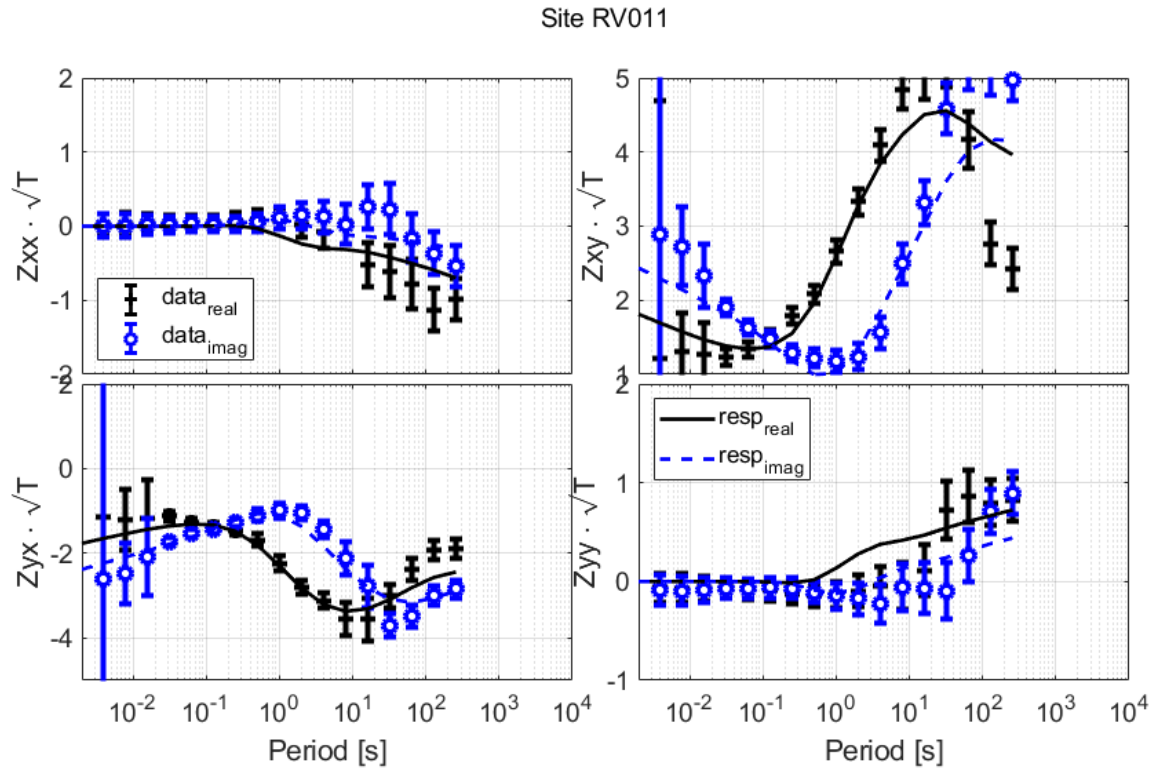
**Figure S14.** Datafit for site MOY017, impedance



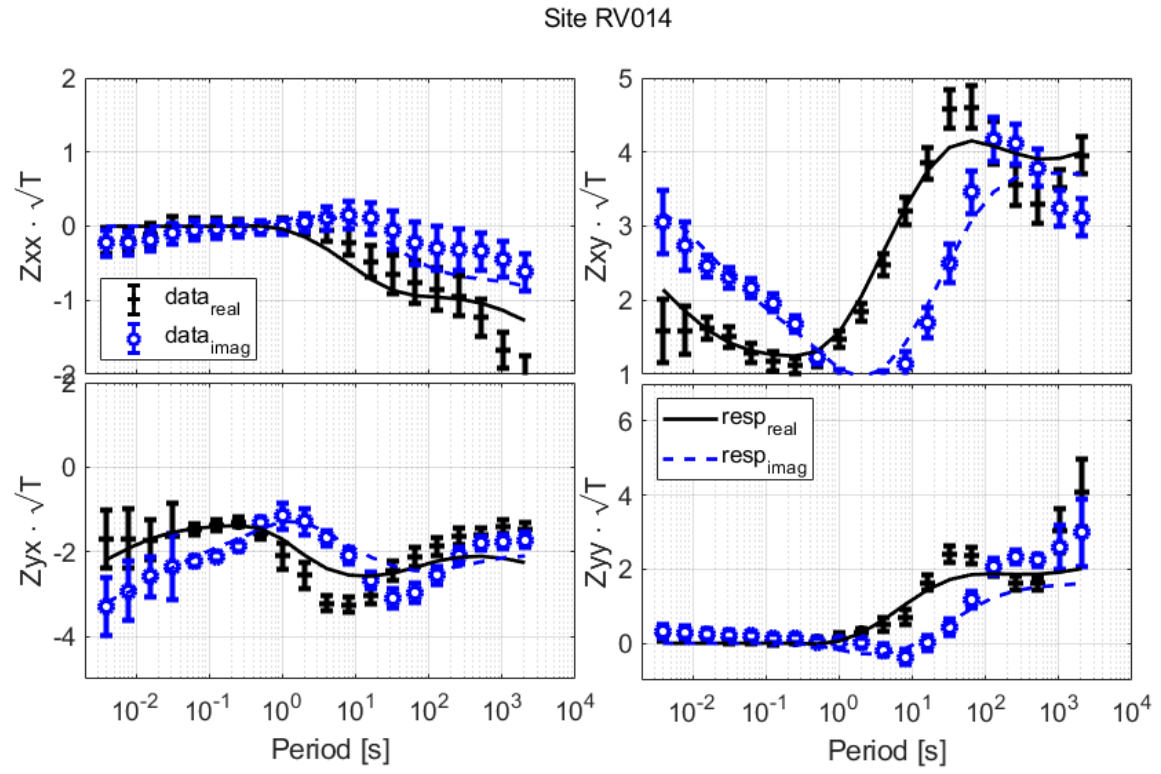
**Figure S15.** Datafit for site MOY06, impedance



**Figure S16.** Datafit for site R009, impedance



**Figure S17.** Datafit for site R011, impedance



**Figure S18.** Datafit for site R0014, impedance

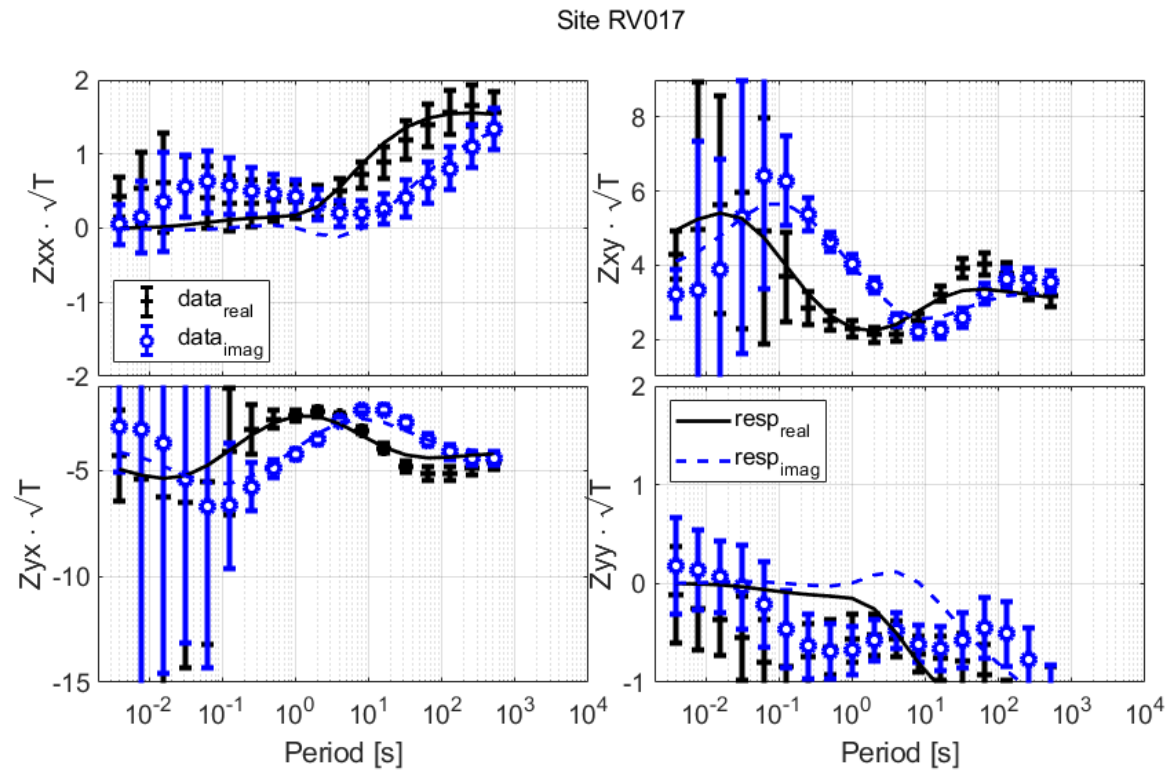
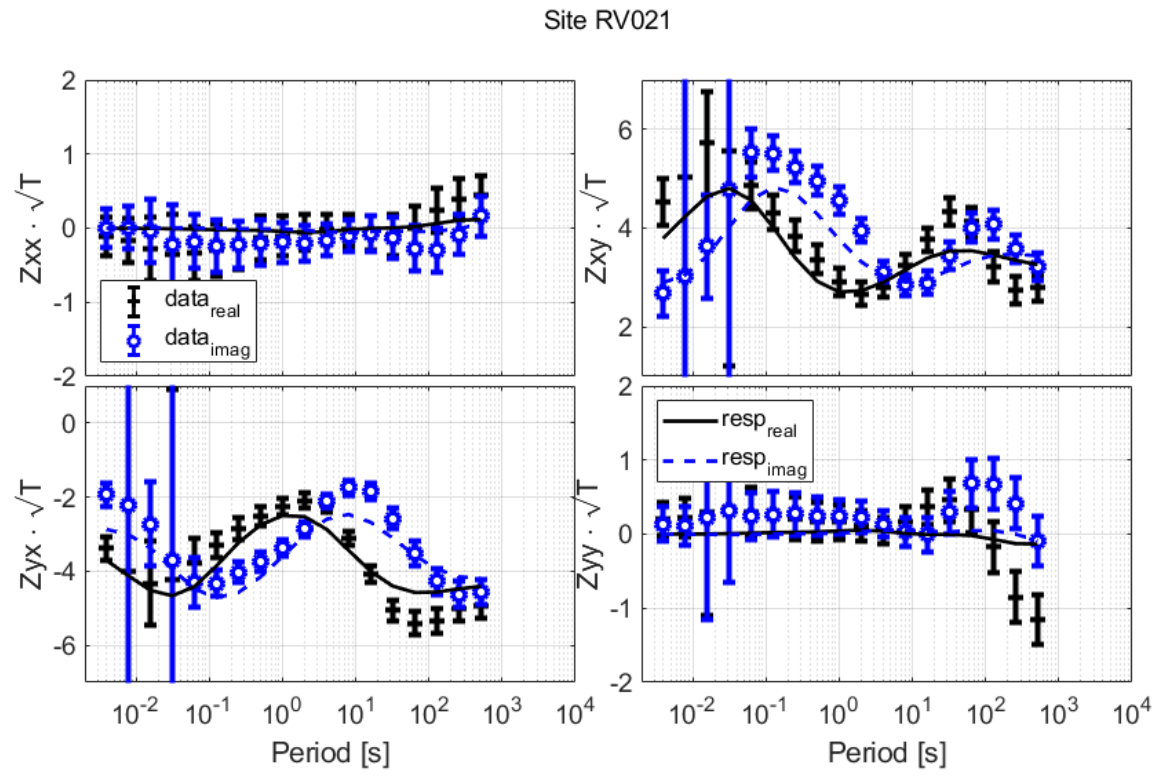


Figure S19. Datafit for site R017, impedance



**Figure S20.** Datafit for site R021, impedance

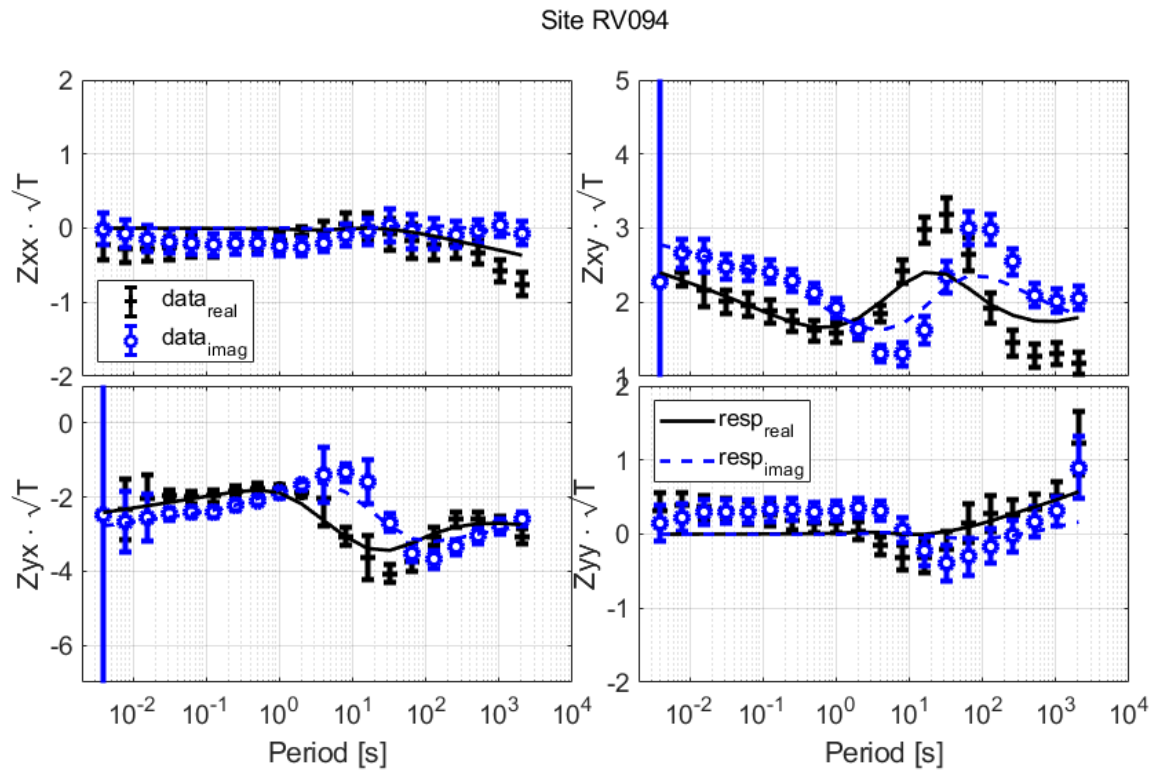
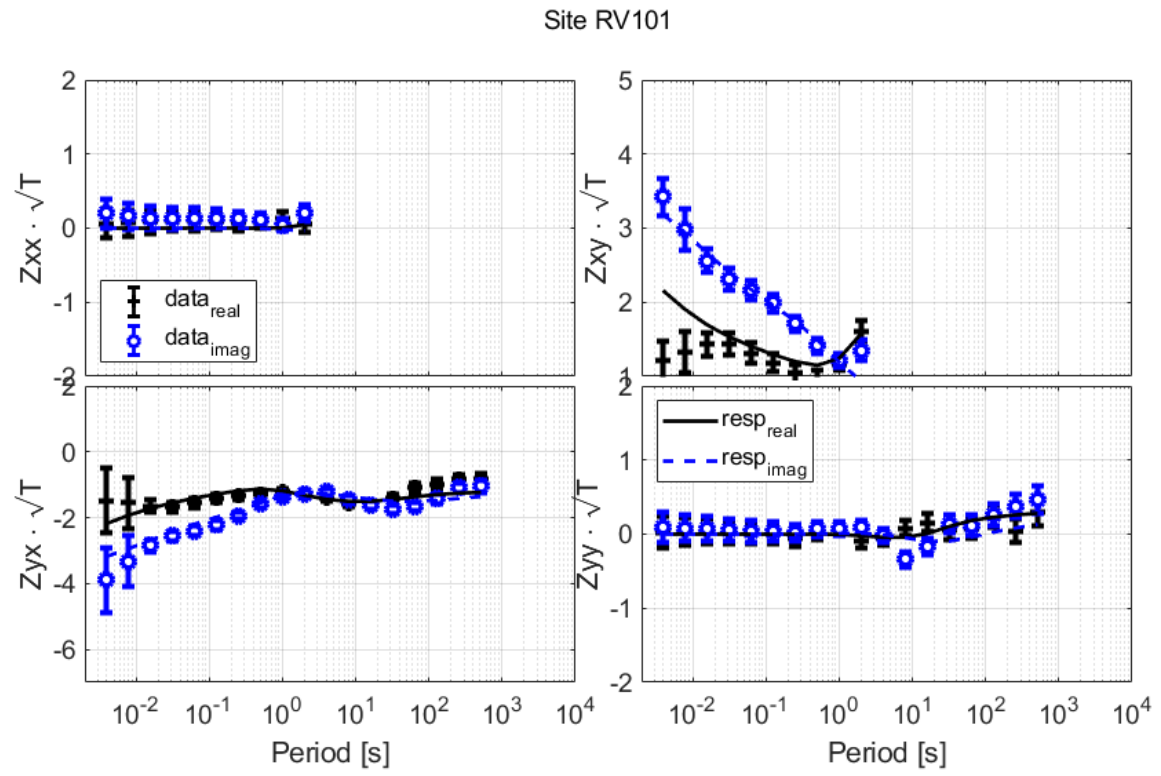


Figure S21. Datafit for site R094, impedance



**Figure S22.** Datafit for site R101, impedance

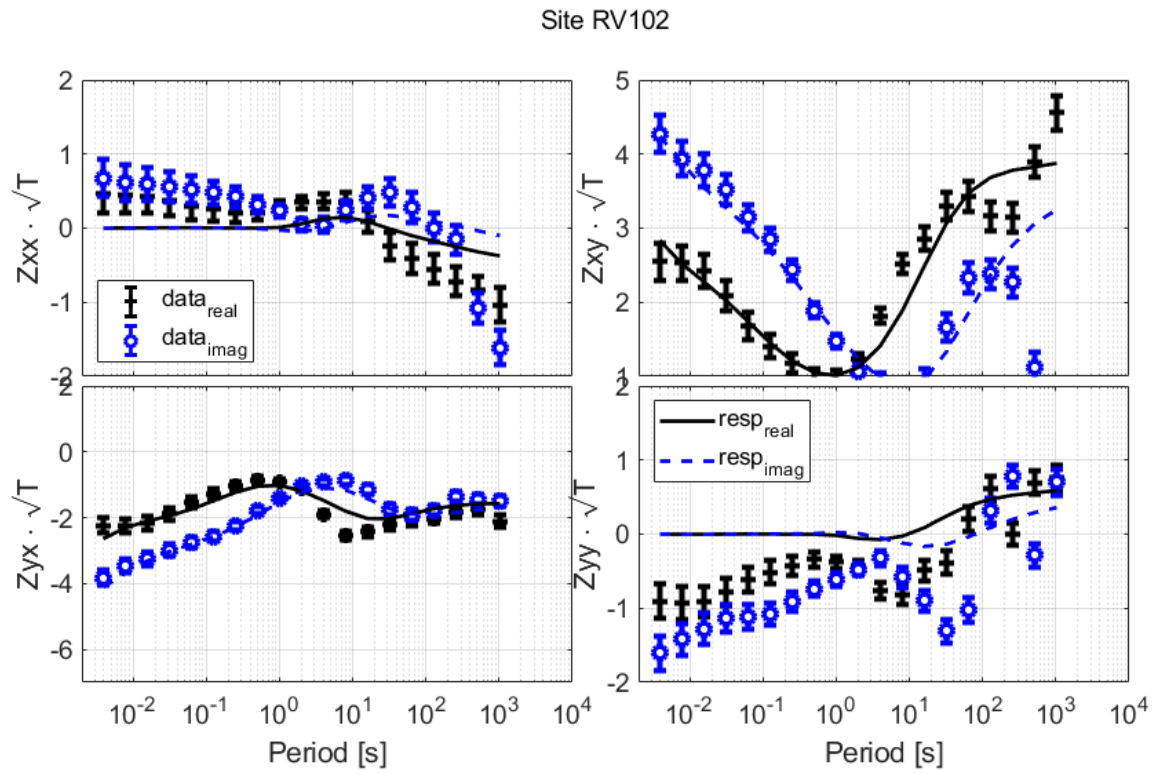
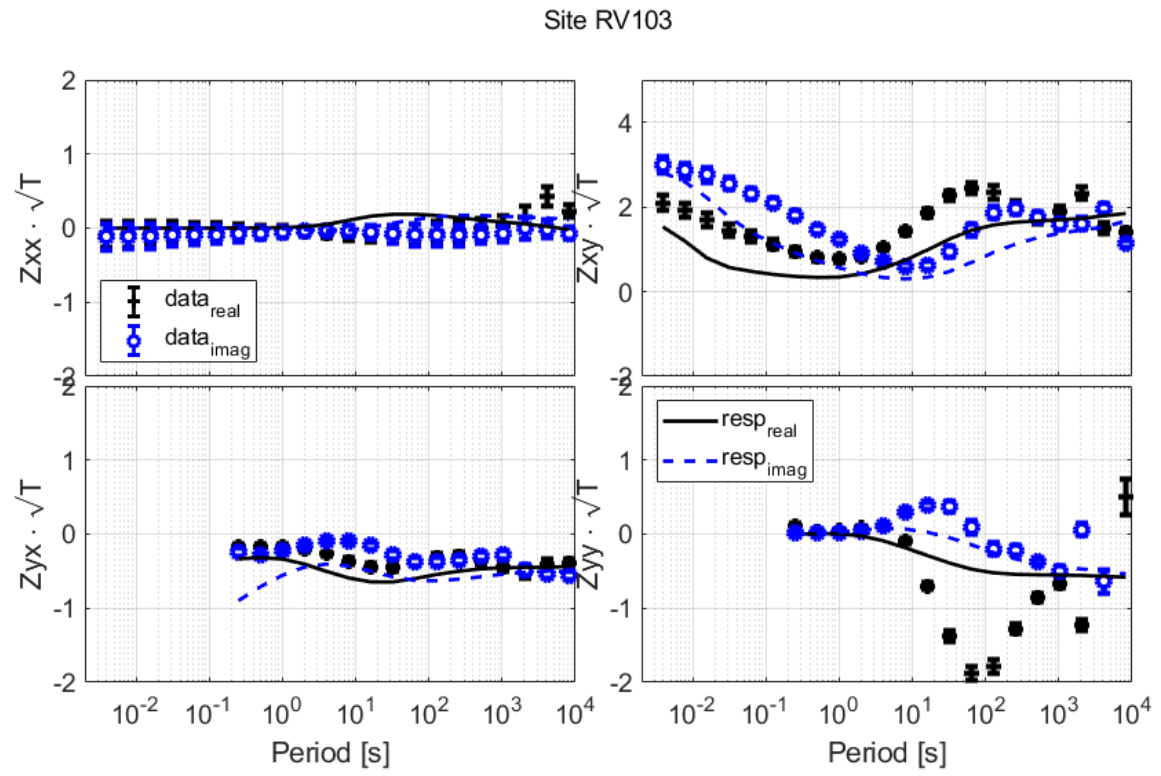
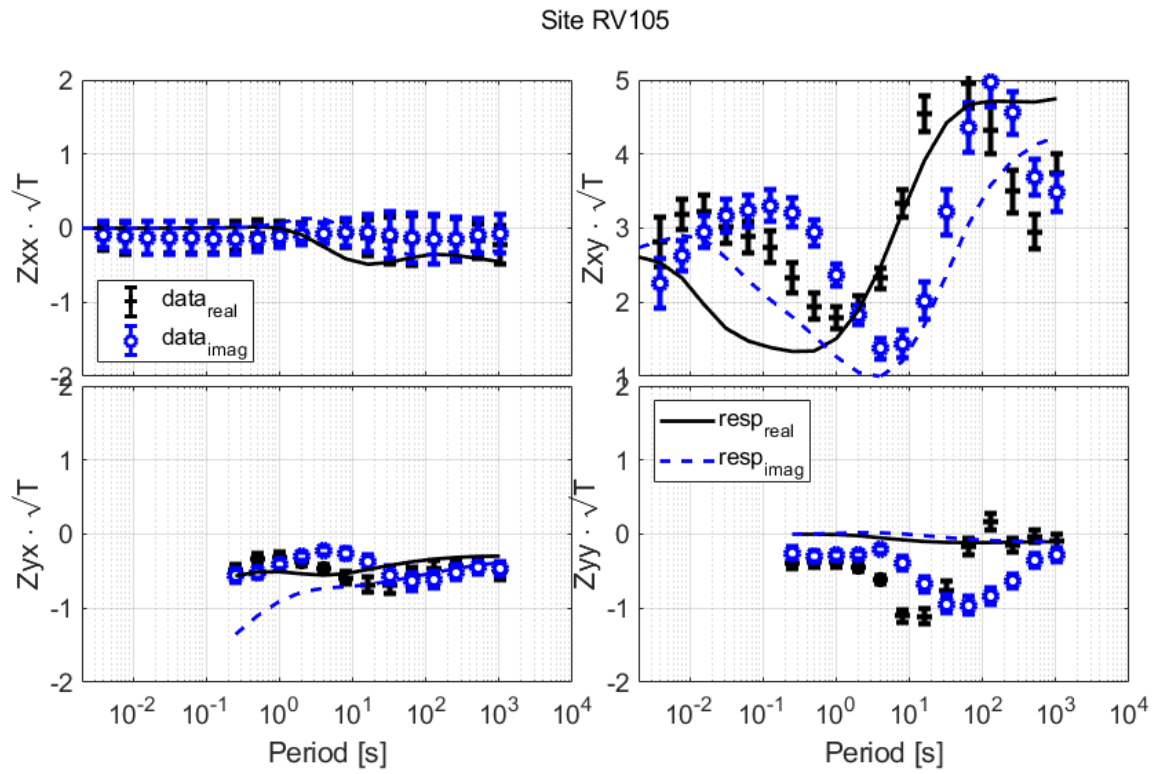


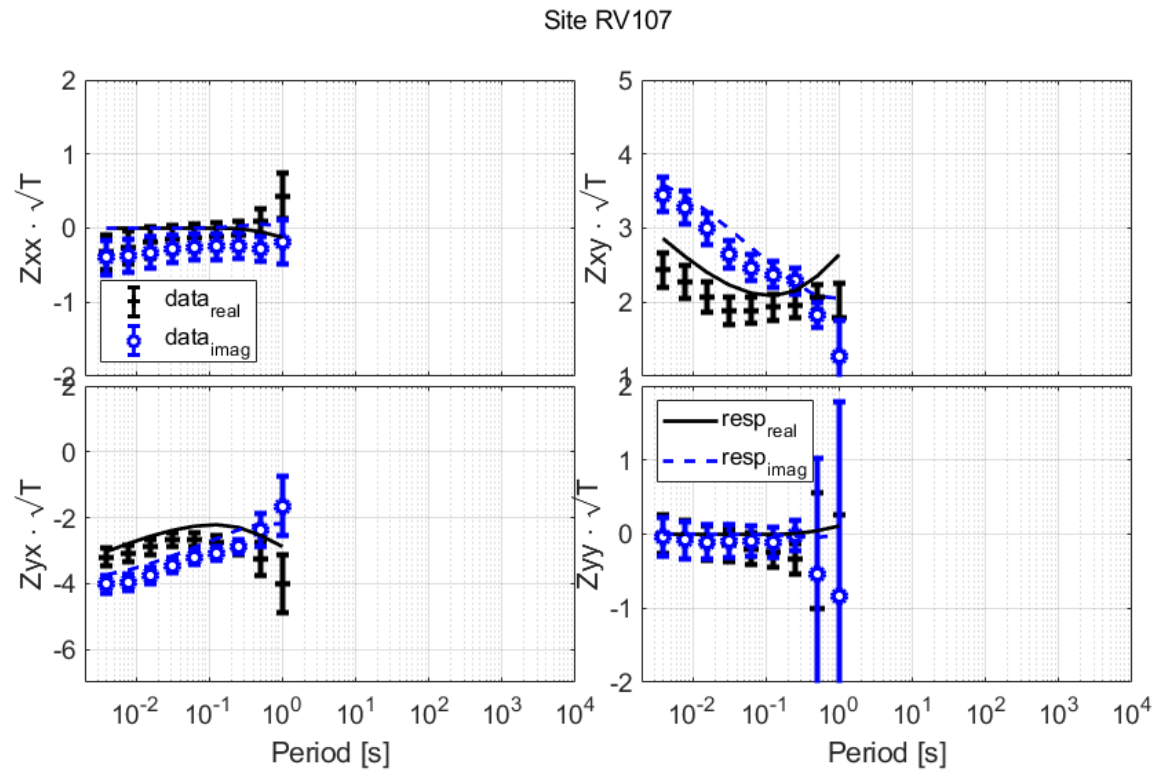
Figure S23. Datafit for site R102, impedance



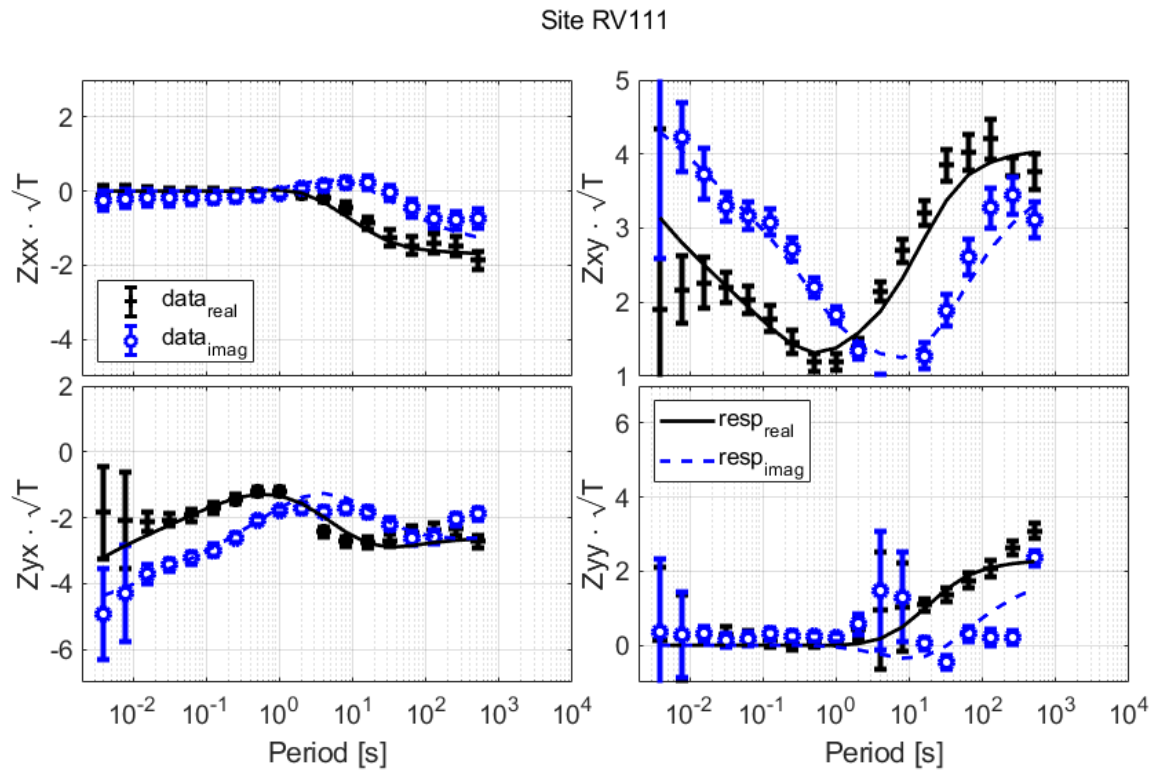
**Figure S24.** Datafit for site R103, impedance



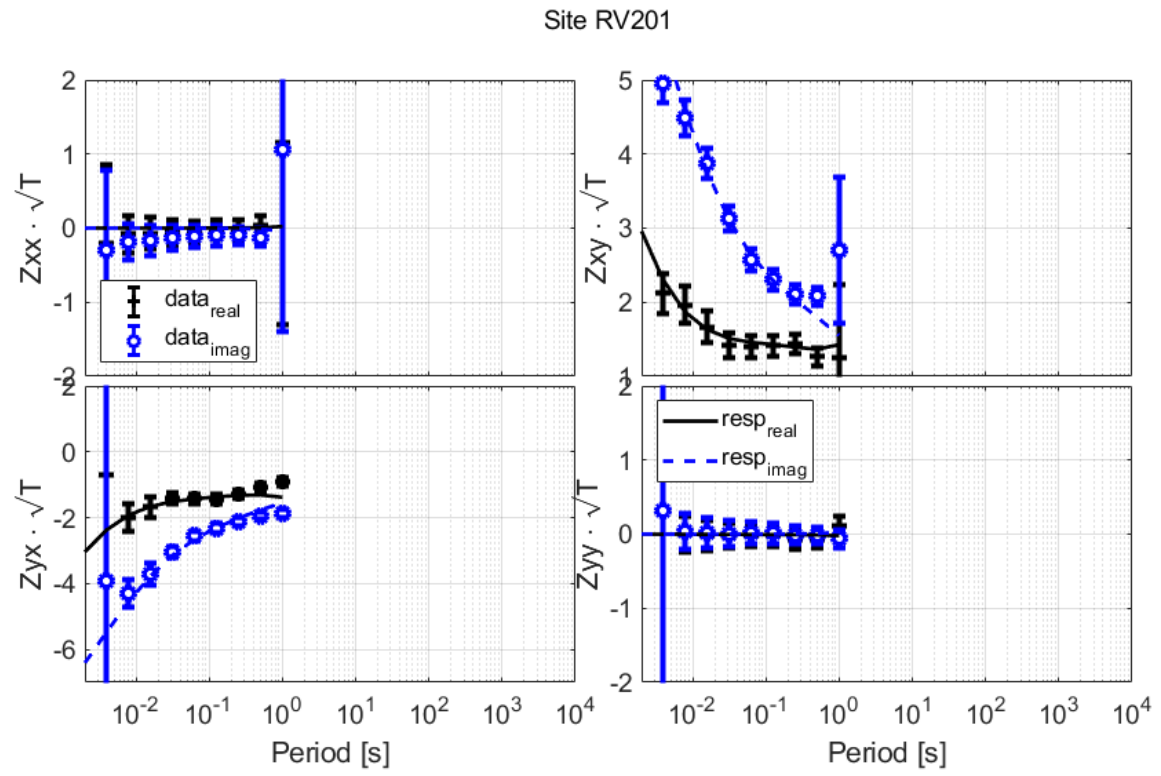
**Figure S25.** Datafit for site R105, impedance



**Figure S26.** Datafit for site R107, impedance



**Figure S27.** Datafit for site R111, impedance



**Figure S28.** Datafit for site R201, impedance

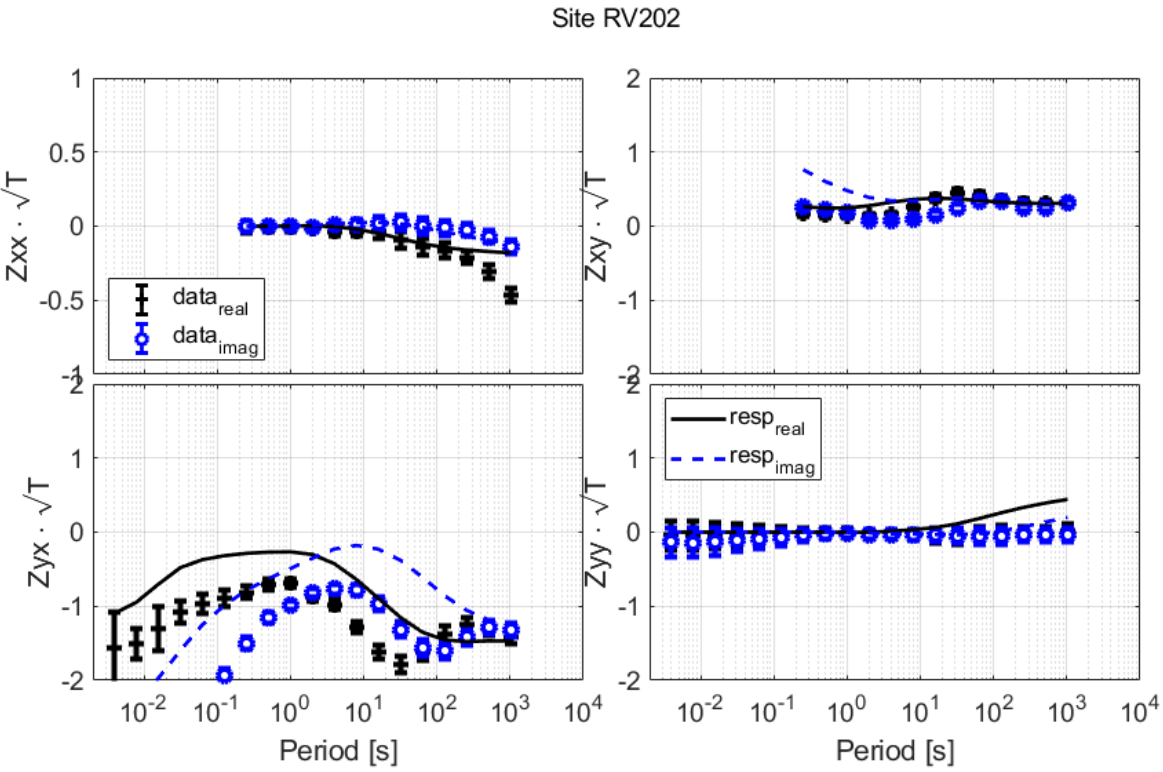
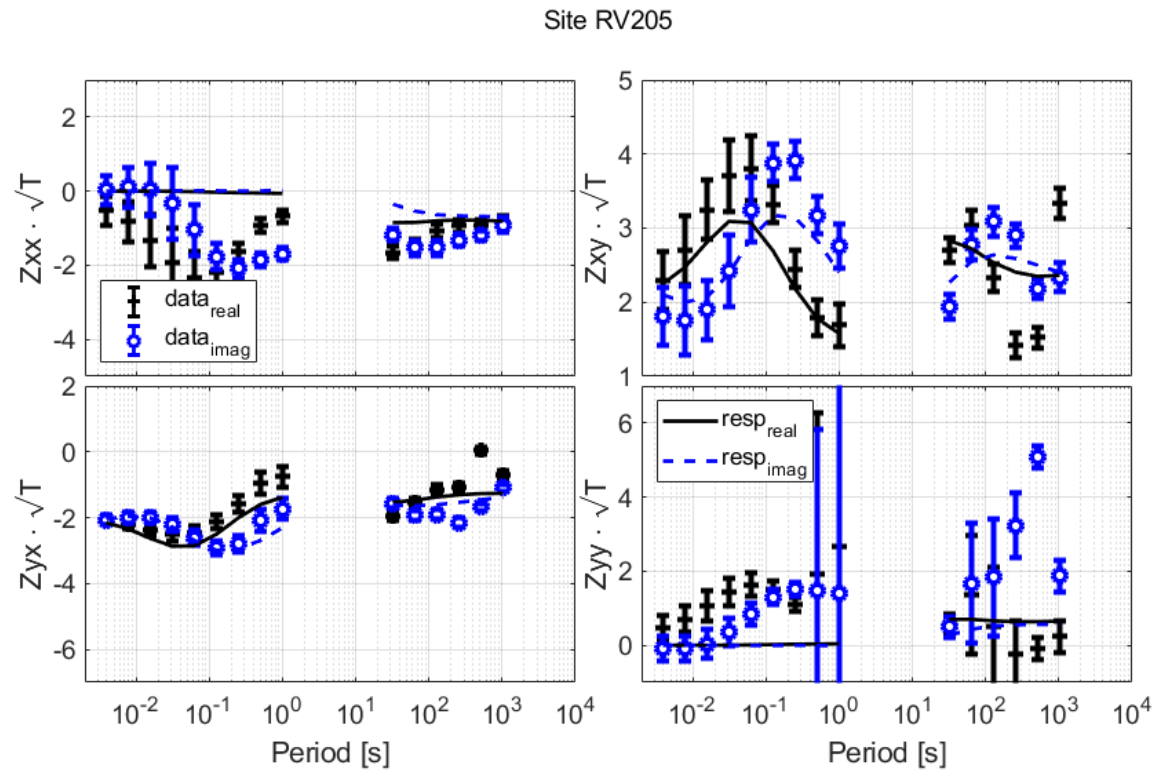
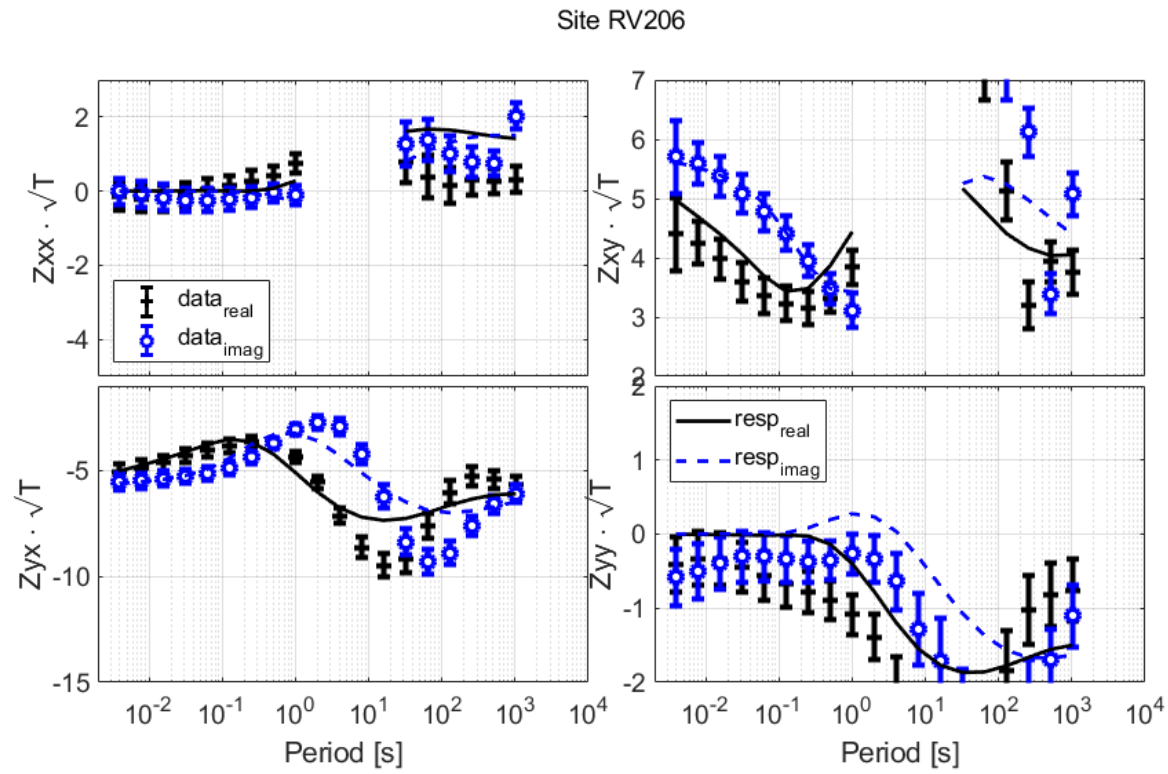


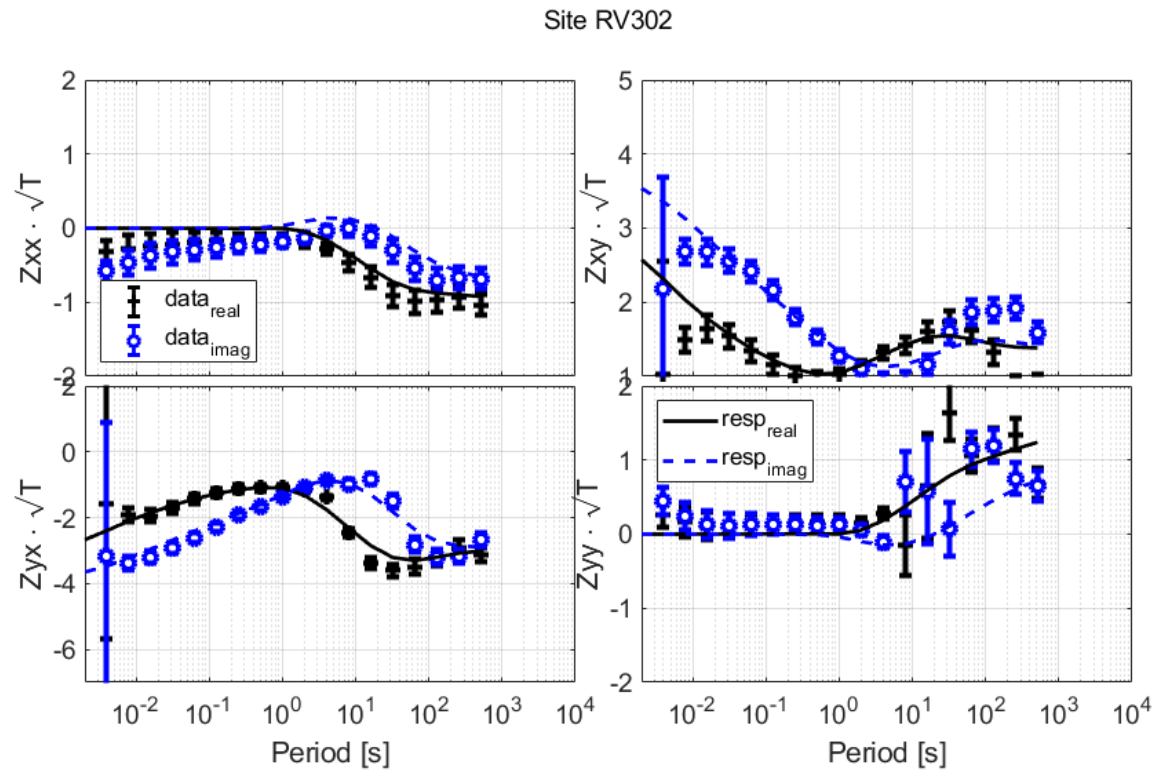
Figure S29. Datafit for site R202, impedance



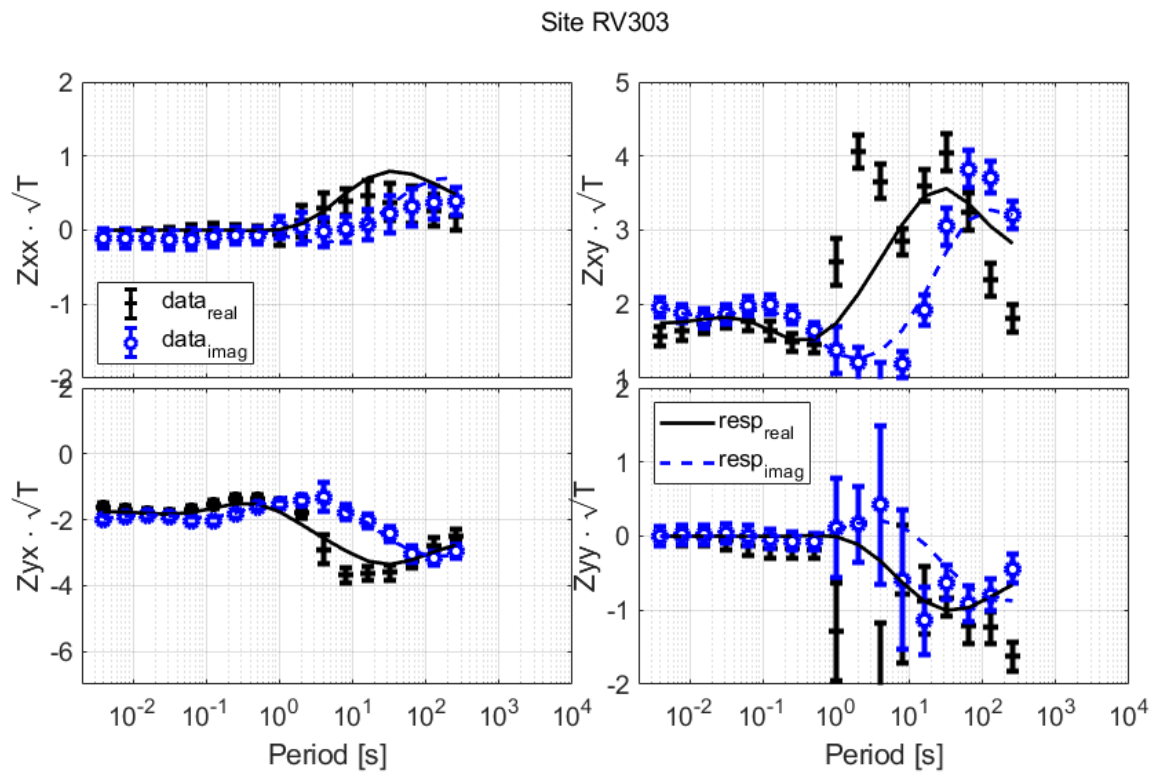
**Figure S30.** Datafit for site R205, impedance



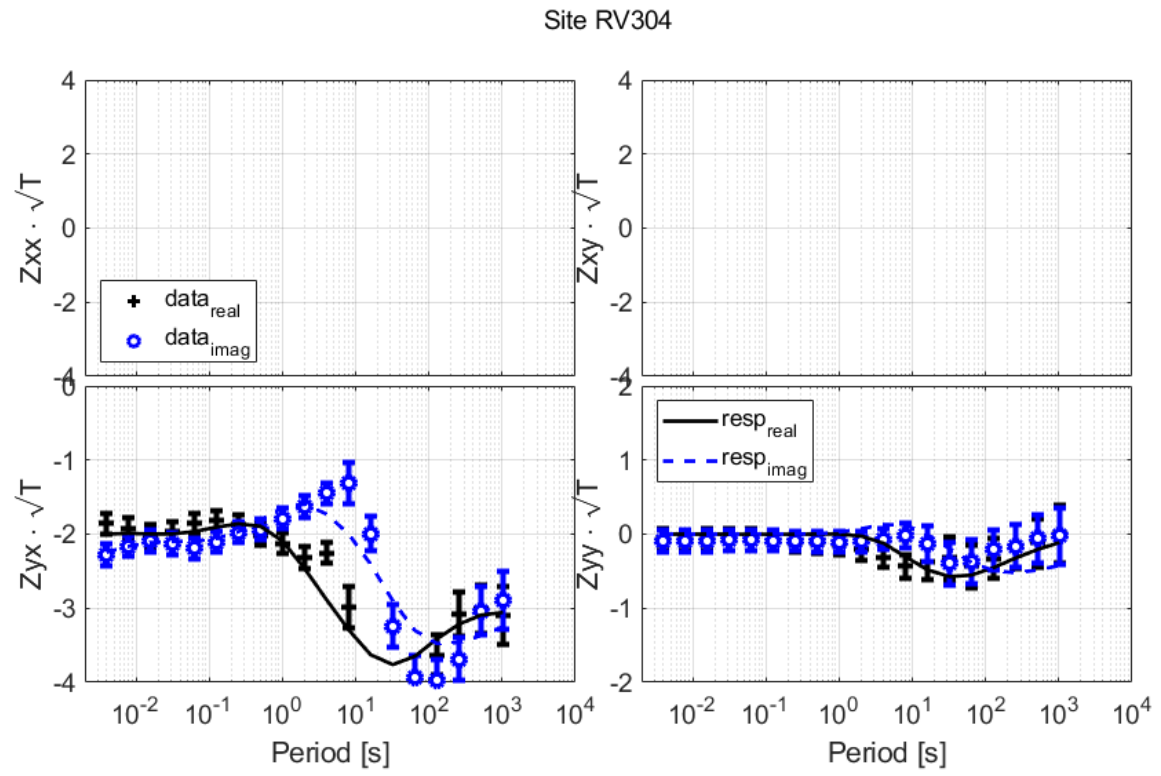
**Figure S31.** Datafit for site R206, impedance



**Figure S32.** Datafit for site R302, impedance



**Figure S33.** Datafit for site R303, impedance



**Figure S34.** Datafit for site R304, impedance

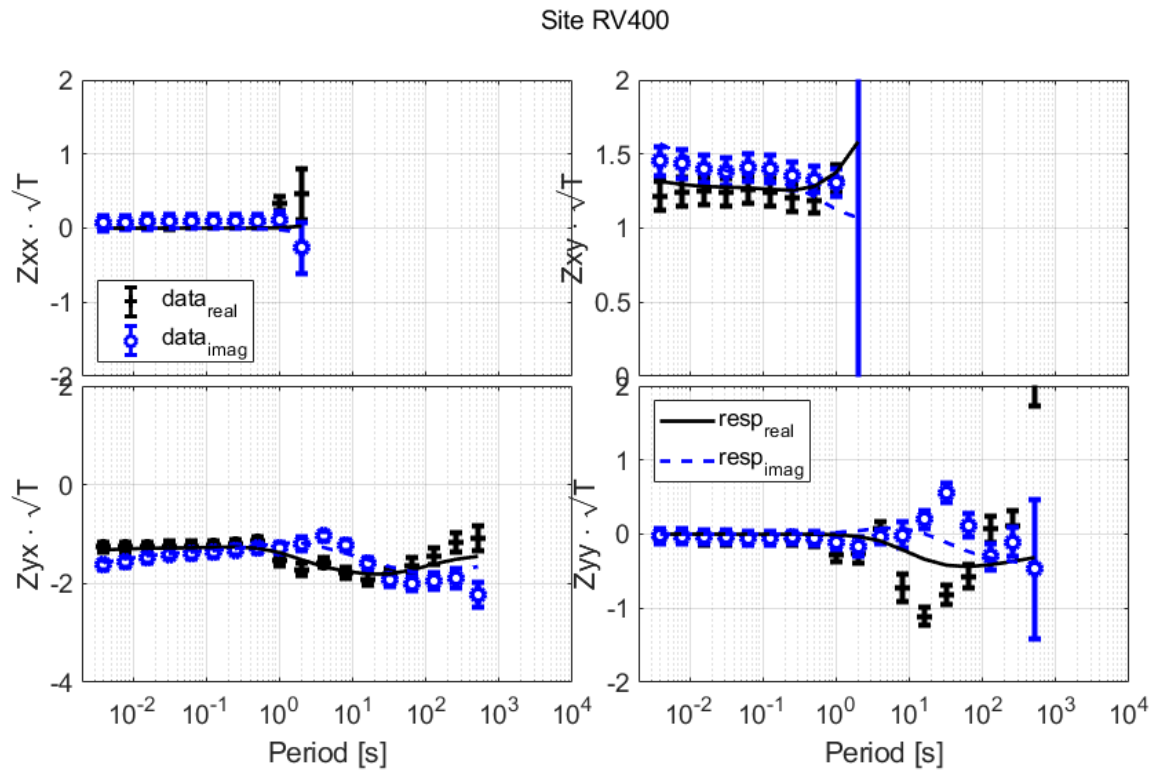
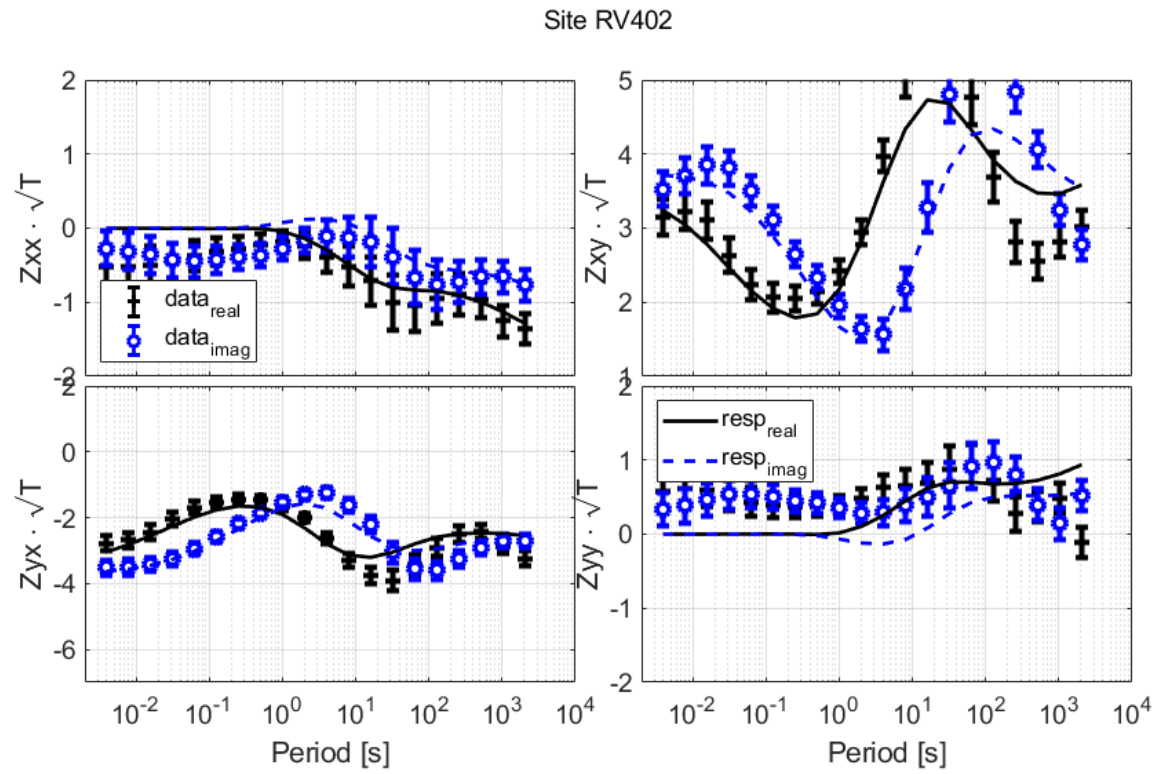
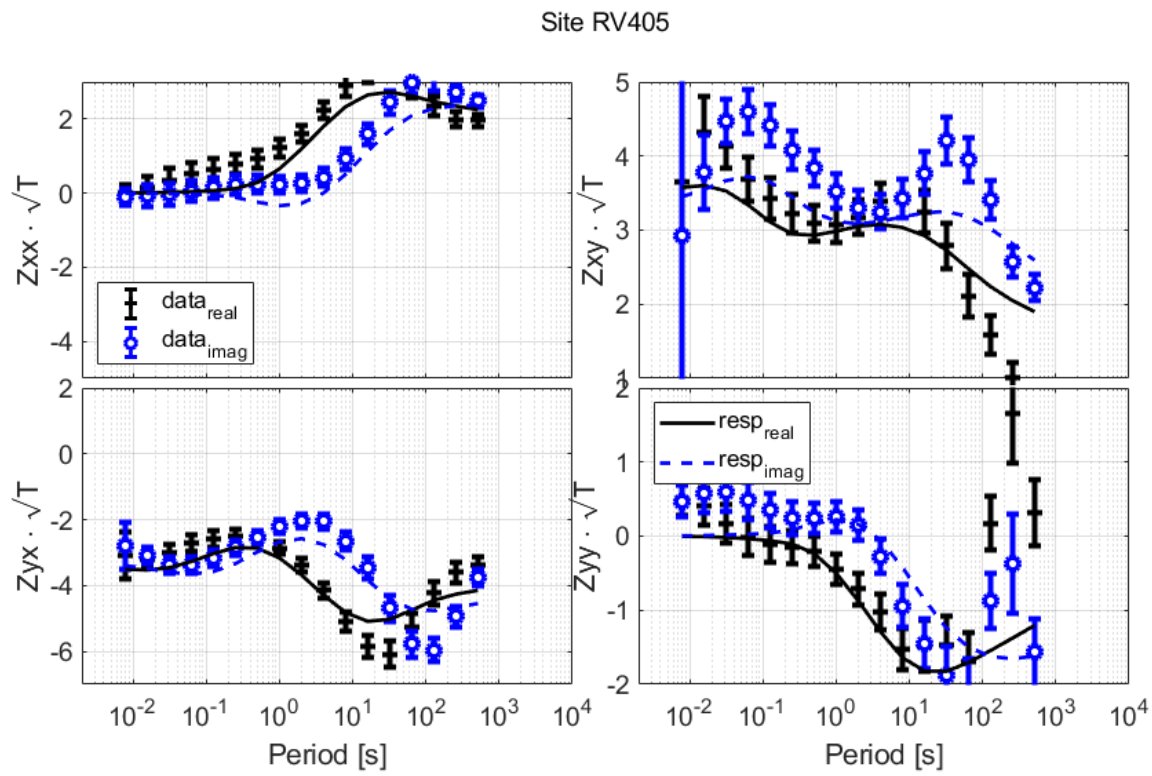


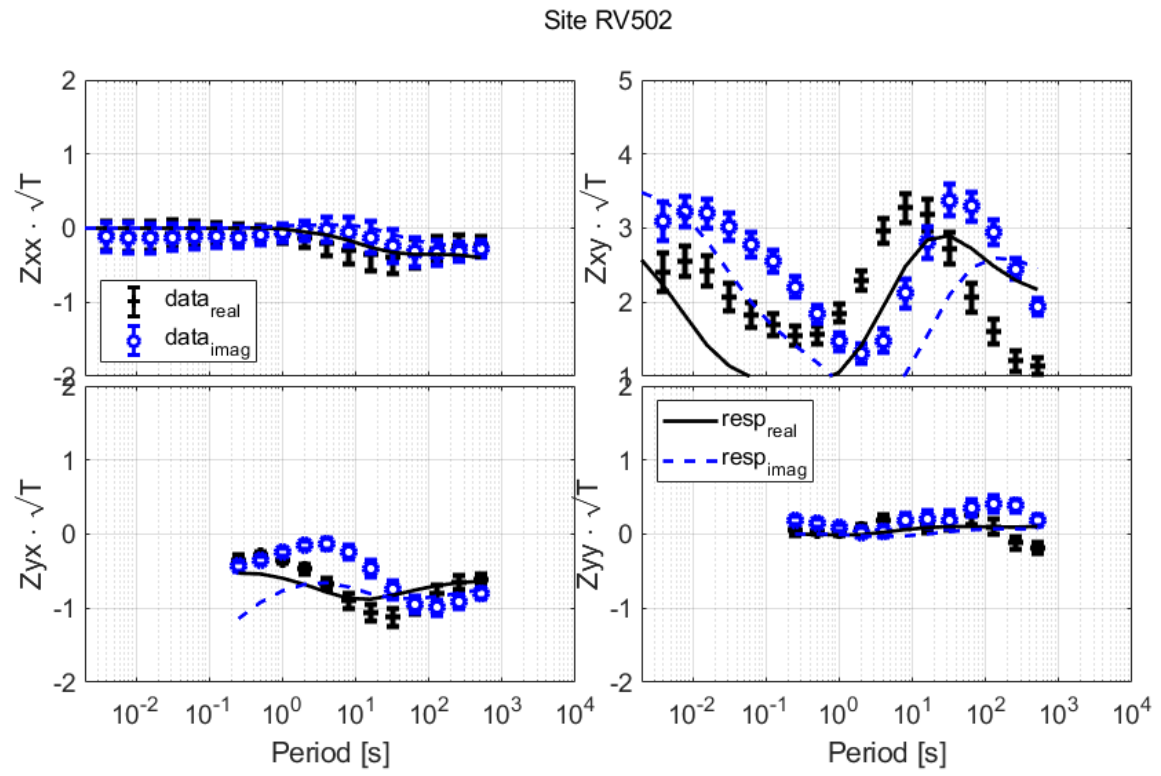
Figure S35. Datafit for site R400, impedance



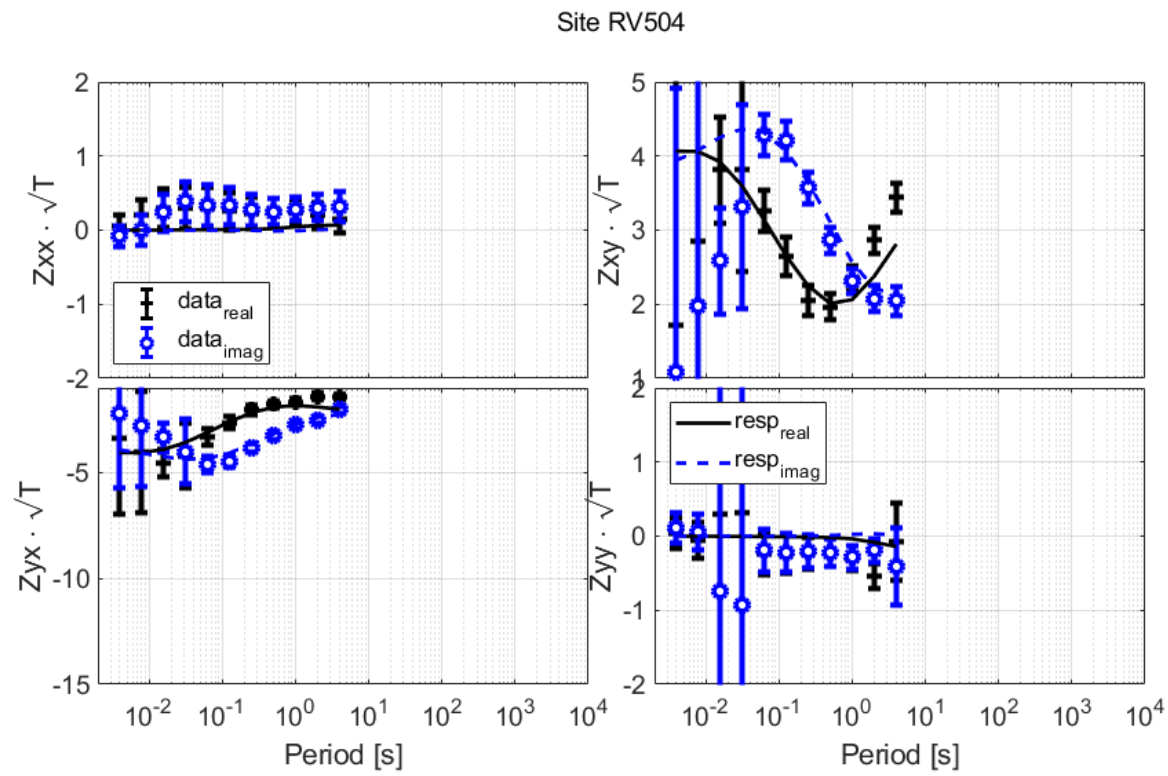
**Figure S36.** Datafit for site R402, impedance



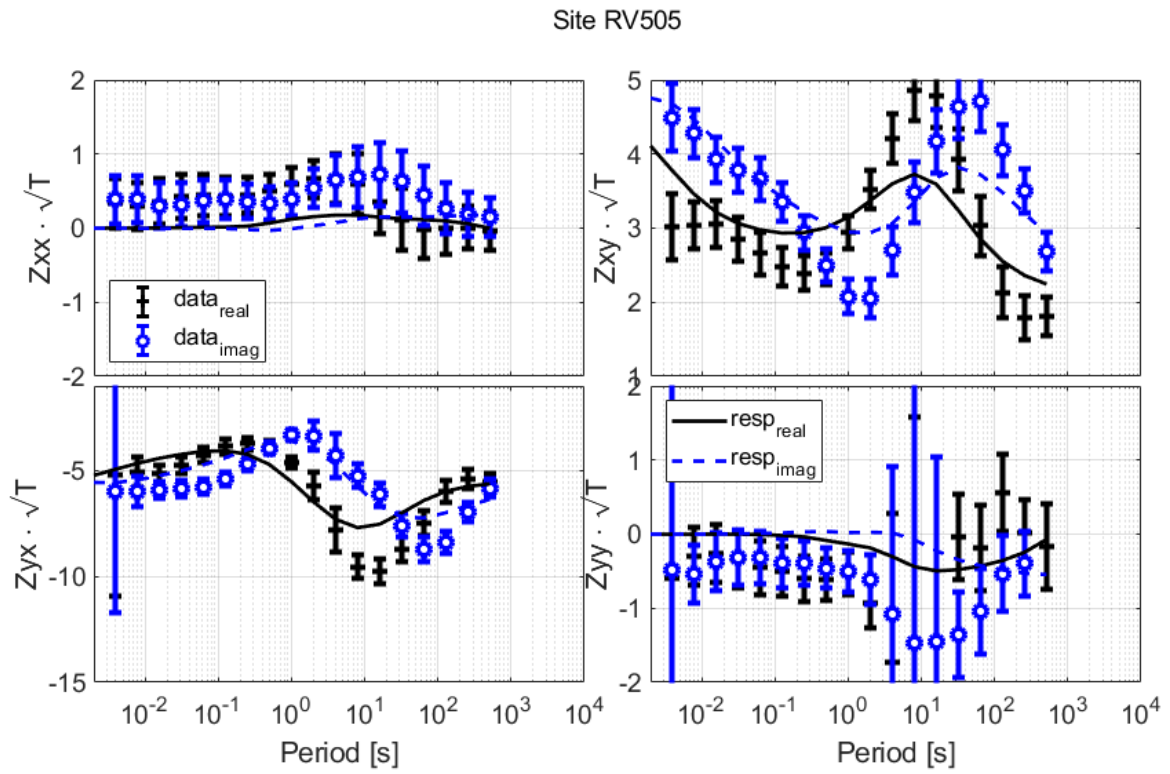
**Figure S37.** Datafit for site R405, impedance



**Figure S38.** Datafit for site R502, impedance



**Figure S39.** Datafit for site R504, impedance



**Figure S40.** Datafit for site R505, impedance

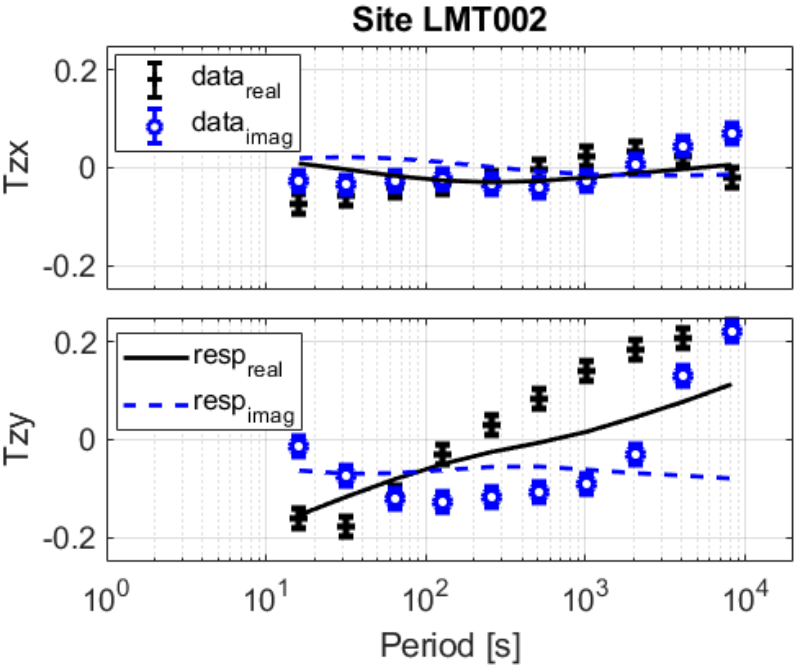


Figure S41. Datafit for site LMT002, tipper

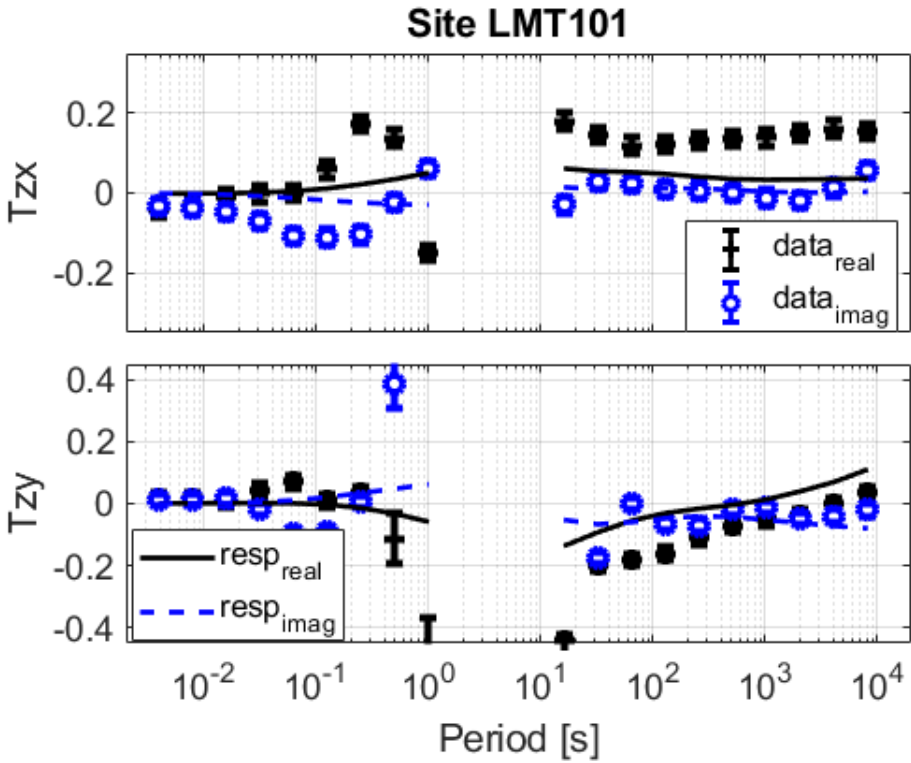
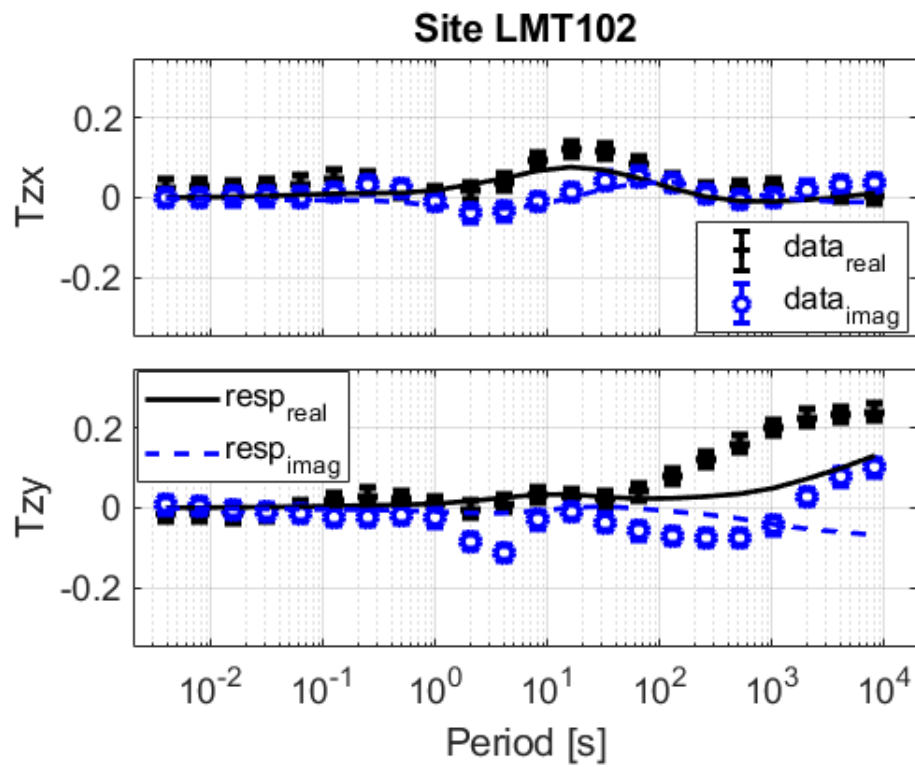


Figure S42. Datafit for site LMT101, tipper



**Figure S43.** Datafit for site LMT102, tipper

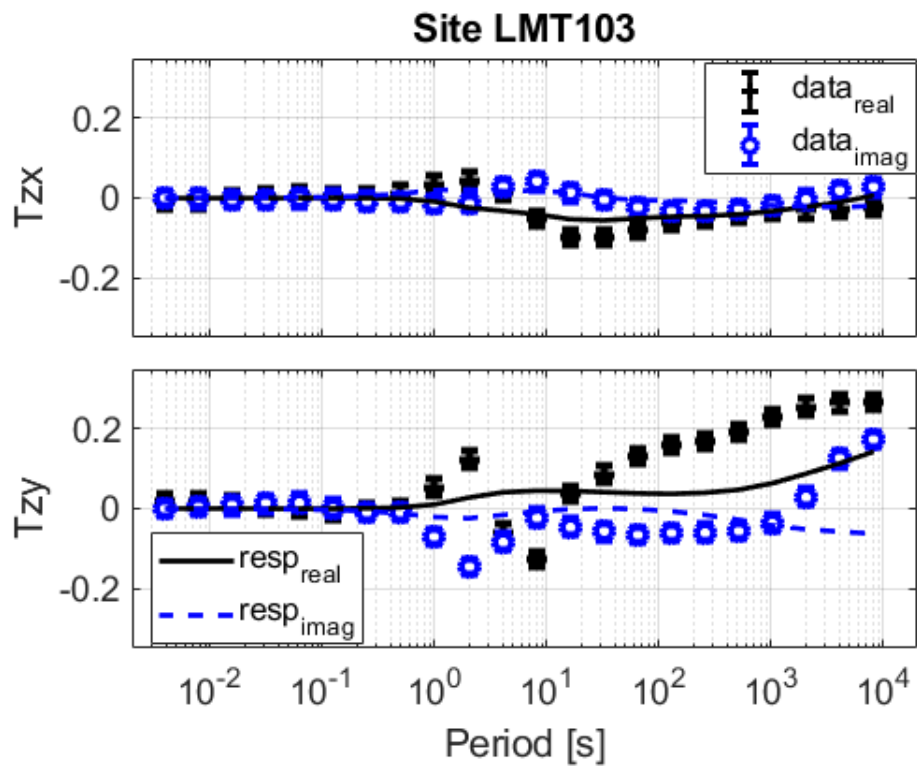


Figure S44. Datafit for site LMT103, tipper

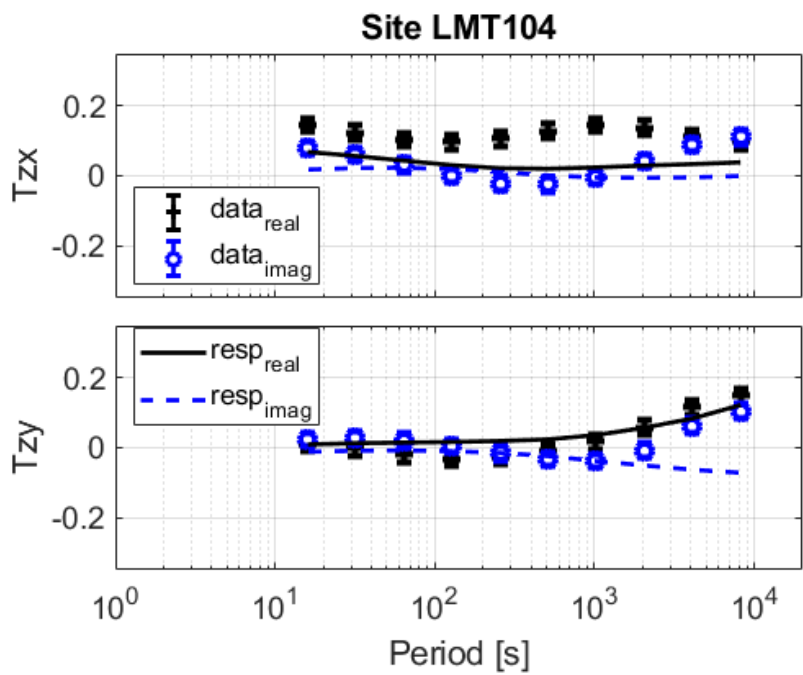


Figure S45. Datafit for site LMT104, tipper

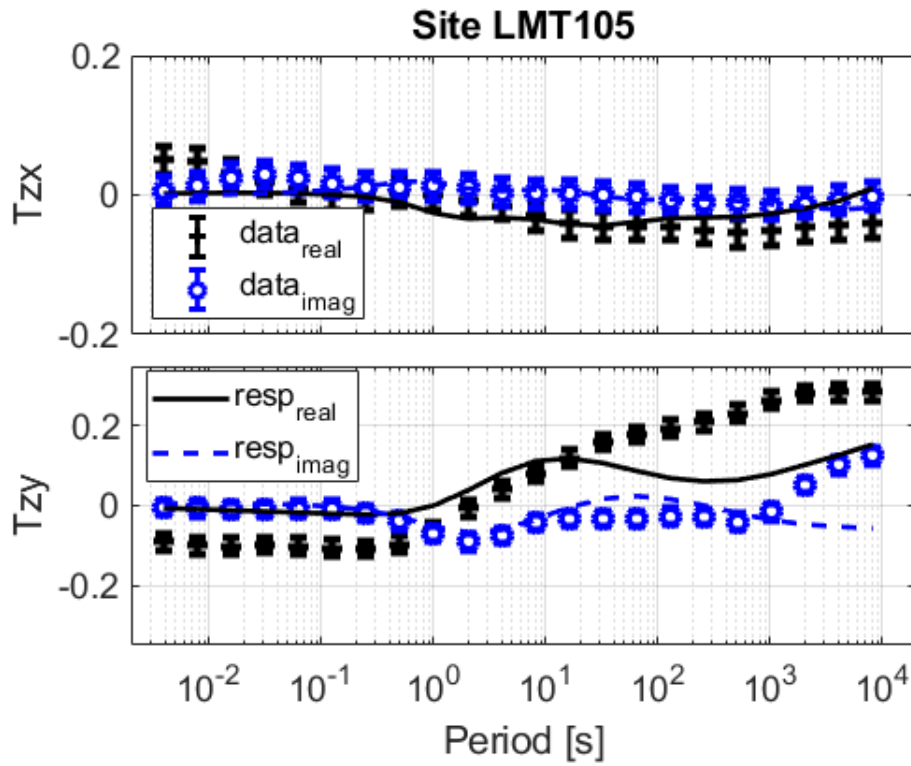


Figure S46. Datafit for site LMT105, tipper

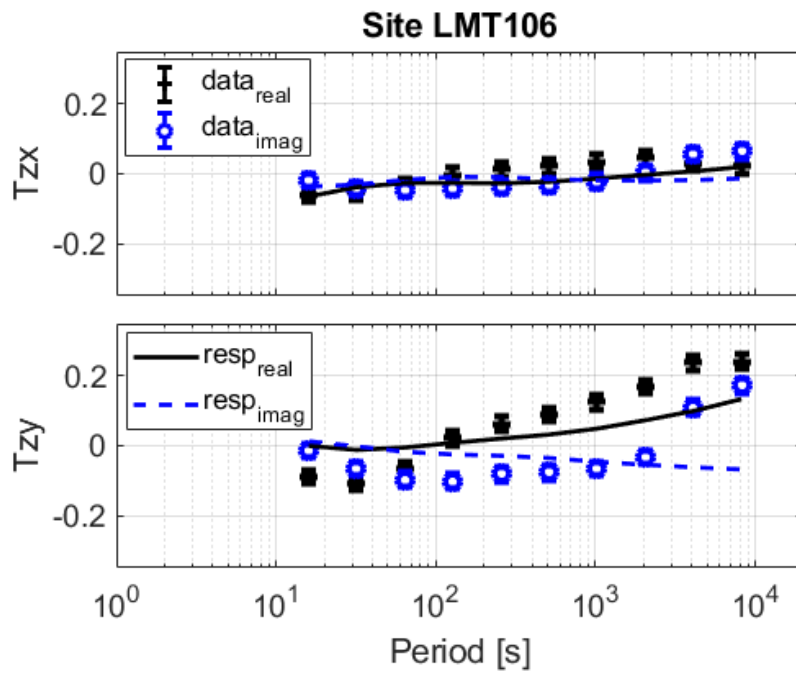


Figure S47. Datafit for site LMT106, tipper

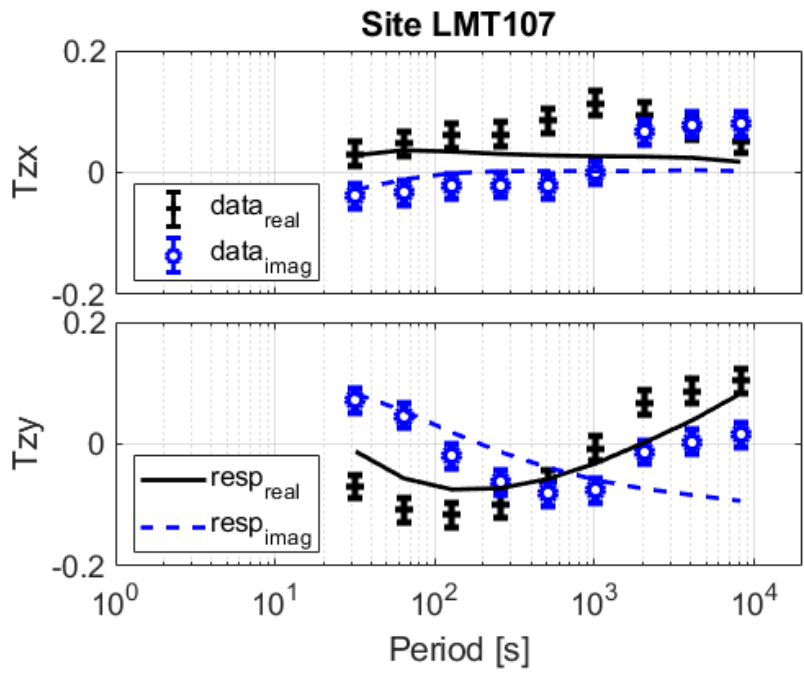


Figure S48. Datafit for site LMT107, tipper

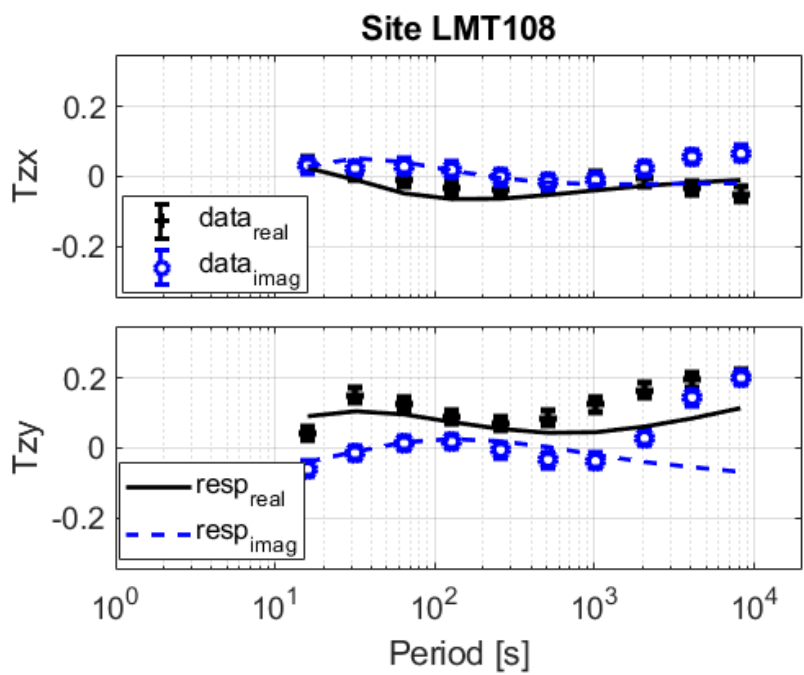
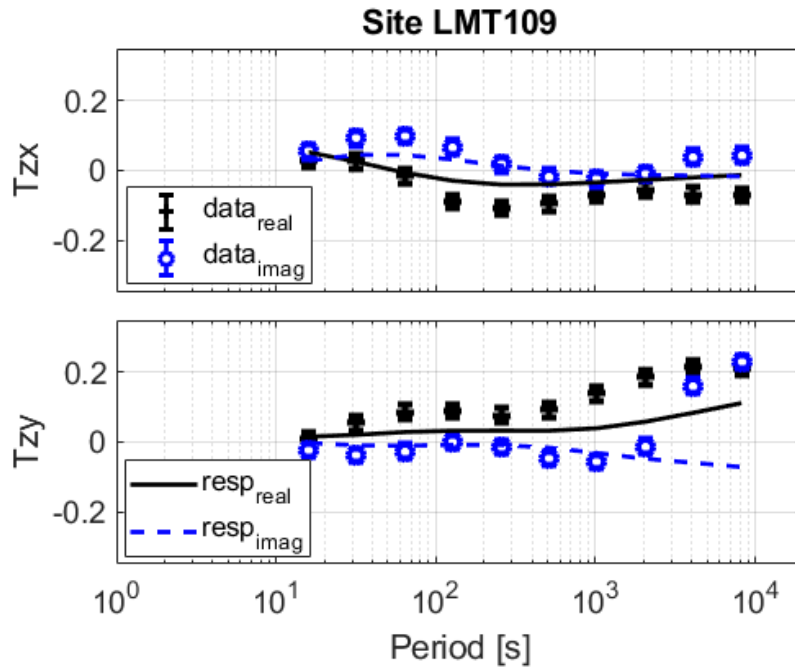
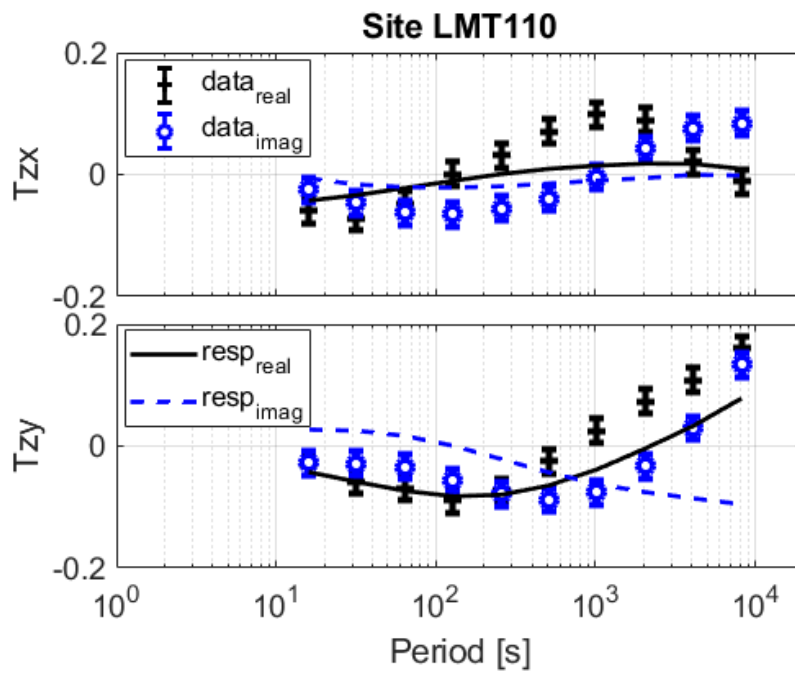


Figure S49. Datafit for site LMT108, tipper



**Figure S50.** Datafit for site LMT109, tipper



**Figure S51.** Datafit for site LMT110, tipper

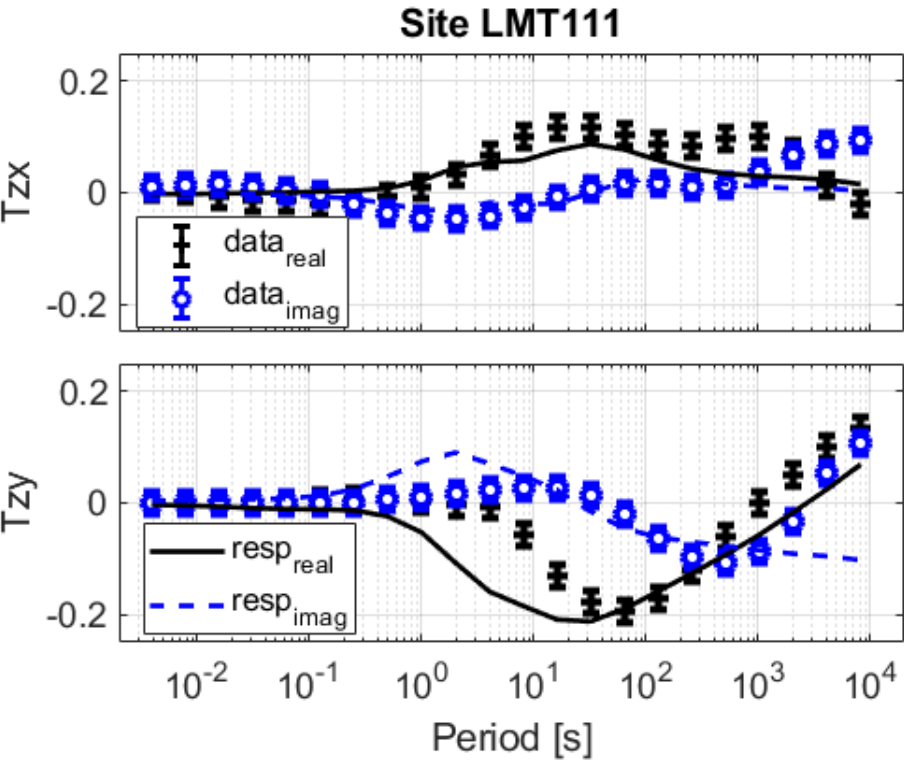


Figure S52. Datafit for site LMT111, tipper