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Supplement of

On the comparison of strain measurements from fibre optics with a dense seismometer array at Etna volcano (Italy)

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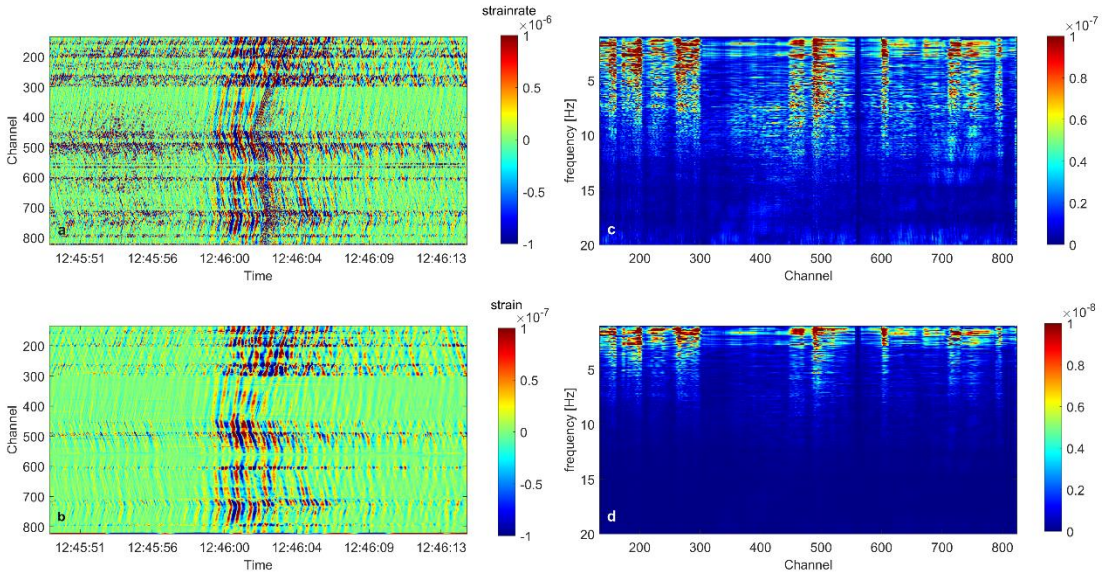

Figure S1: Time series (a, b) and spectra (c, d) during a small volcanic explosion (VE) at Etna on 6 July 2019. (a) Raw DAS strainrate; (b) strain computed by integrating over time the raw strainrate data; (c) spectra of the raw strainrate DAS records overall the channel; (d) spectra of strain records.

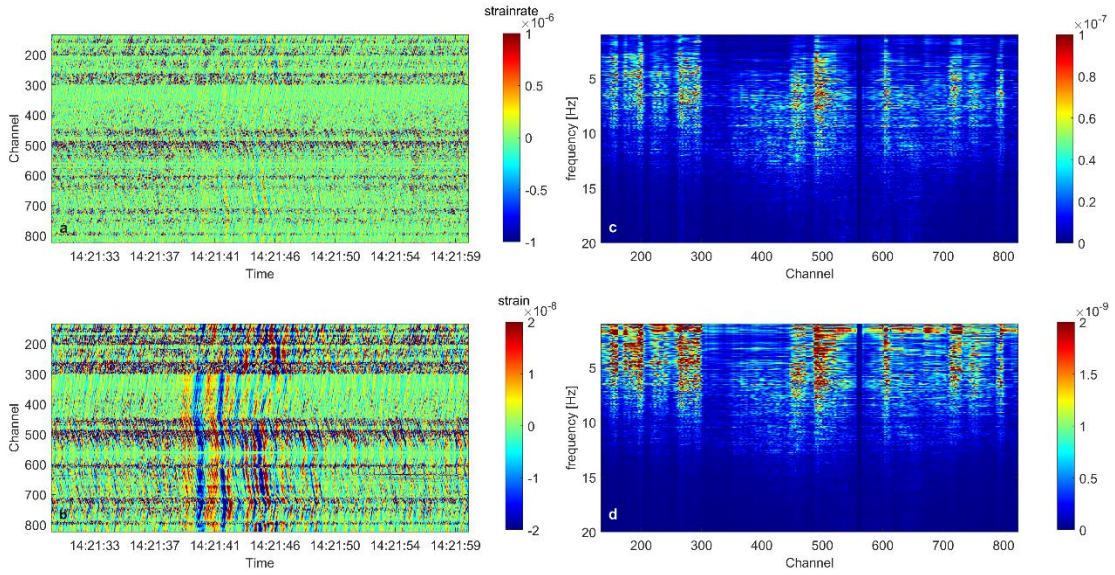

Figure S2: Time series (a, b) and spectra (c, d) during an LP event (LP) at Etna on 27 August 2019. (a) Raw DAS strainrate; (b) strain computed by integrating over time the raw strainrate data; (c) spectra of the raw strainrate DAS records overall the channel; (d) spectra of strain records.

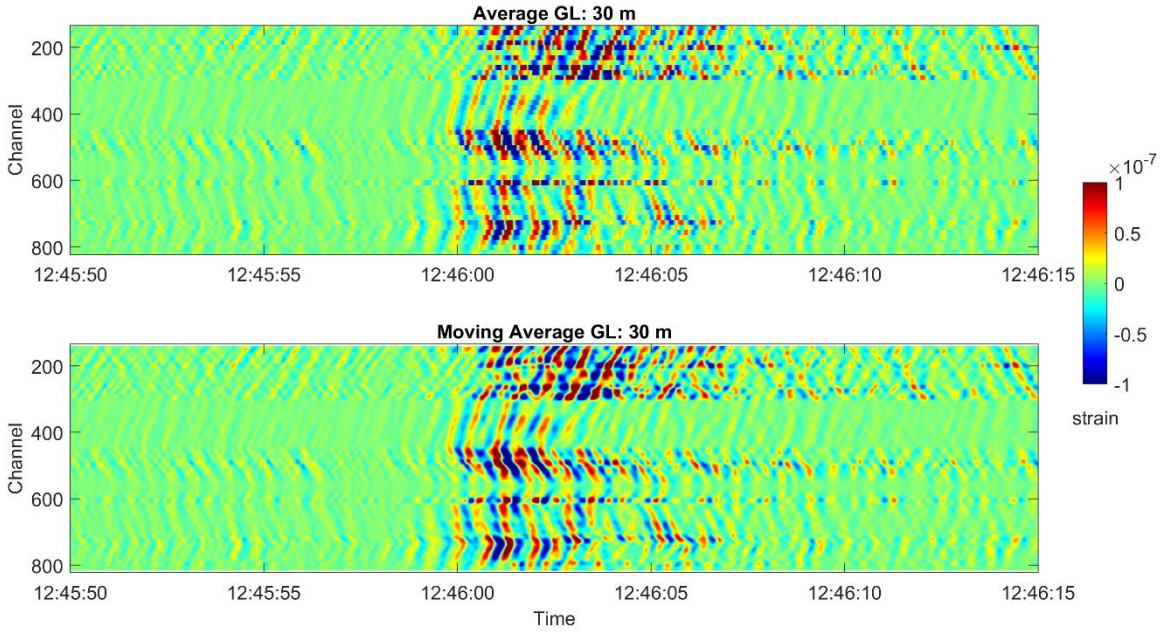

Figure S3: Strain data (volcanic explosion on 6 July 2019) after increasing the gauge length to 30 m. Two methods were used: (top) averaging the data every 15 channels (30 m); (bottom) averaging the data with a mobile mean over 15 channels with a shift of 1 channel.

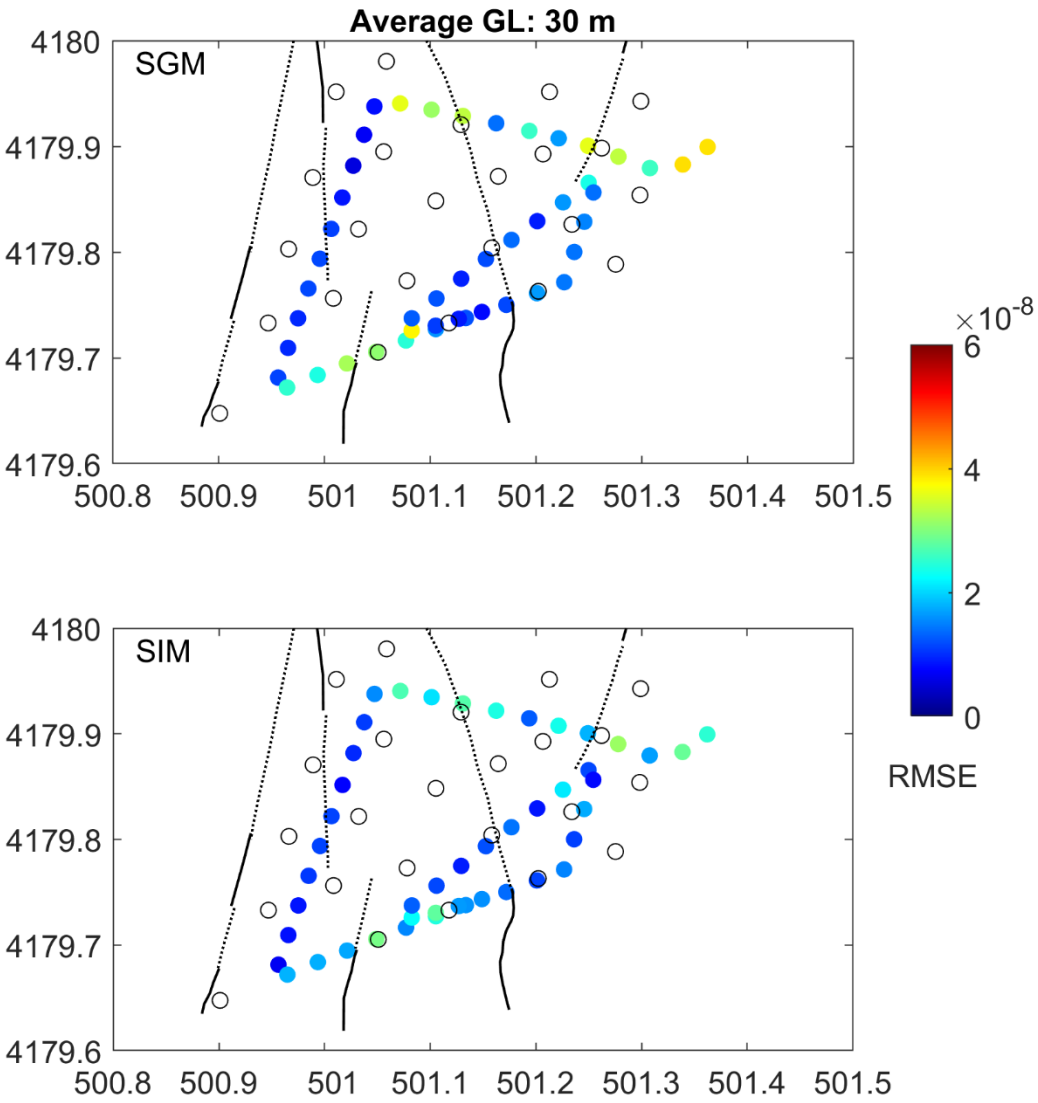

Figure S4: Misfits between the array derived strain and the DAS strain data (volcanic explosion on 6 July 2019) after increasing the gauge length to 30 m using a simple average.

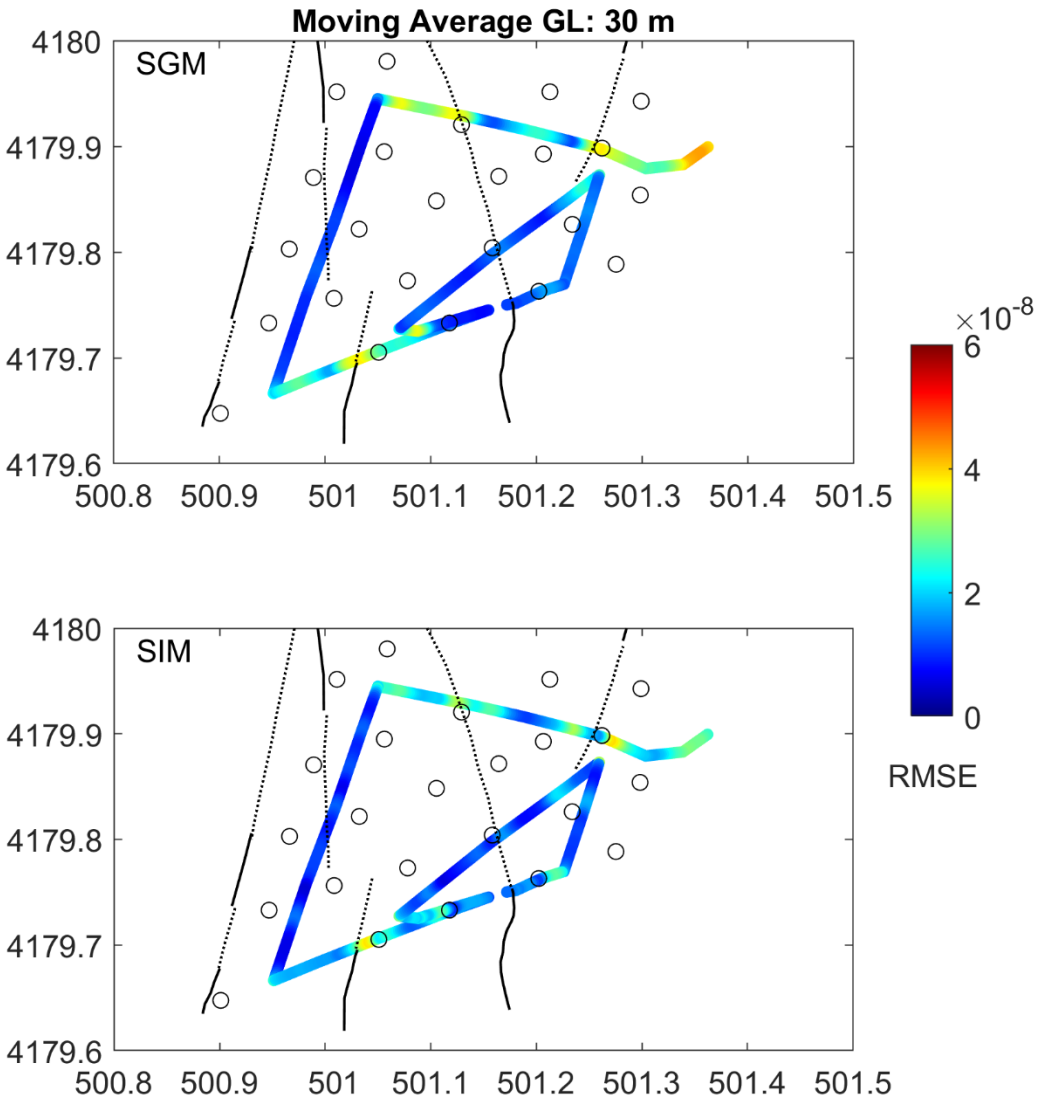

Figure S5: Misfits between the array derived strain and the DAS strain data (volcanic explosion on 6 July 2019) after increasing the gauge length to 30 m using a moving average.

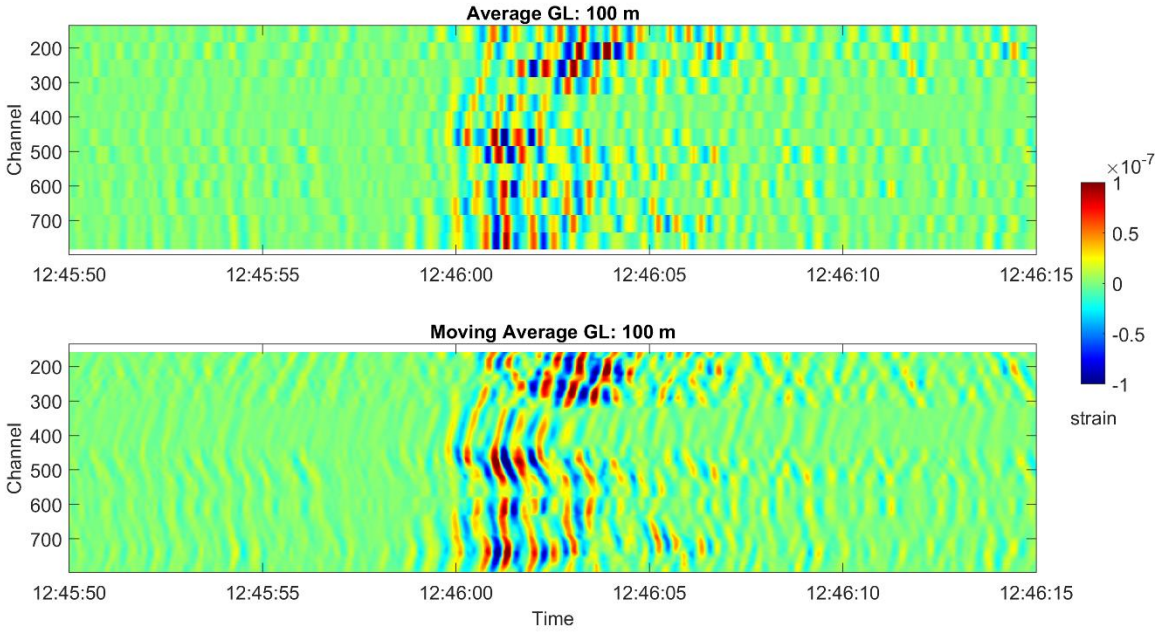

Figure S6: Strain data (volcanic explosion on 6 July 2019) after increasing the gauge length to 100 m. Two methods were used: (top) averaging the data every 50 channels (100 m); (bottom) averaging with a mobile mean over 50 channels with a shift of 1 channel.

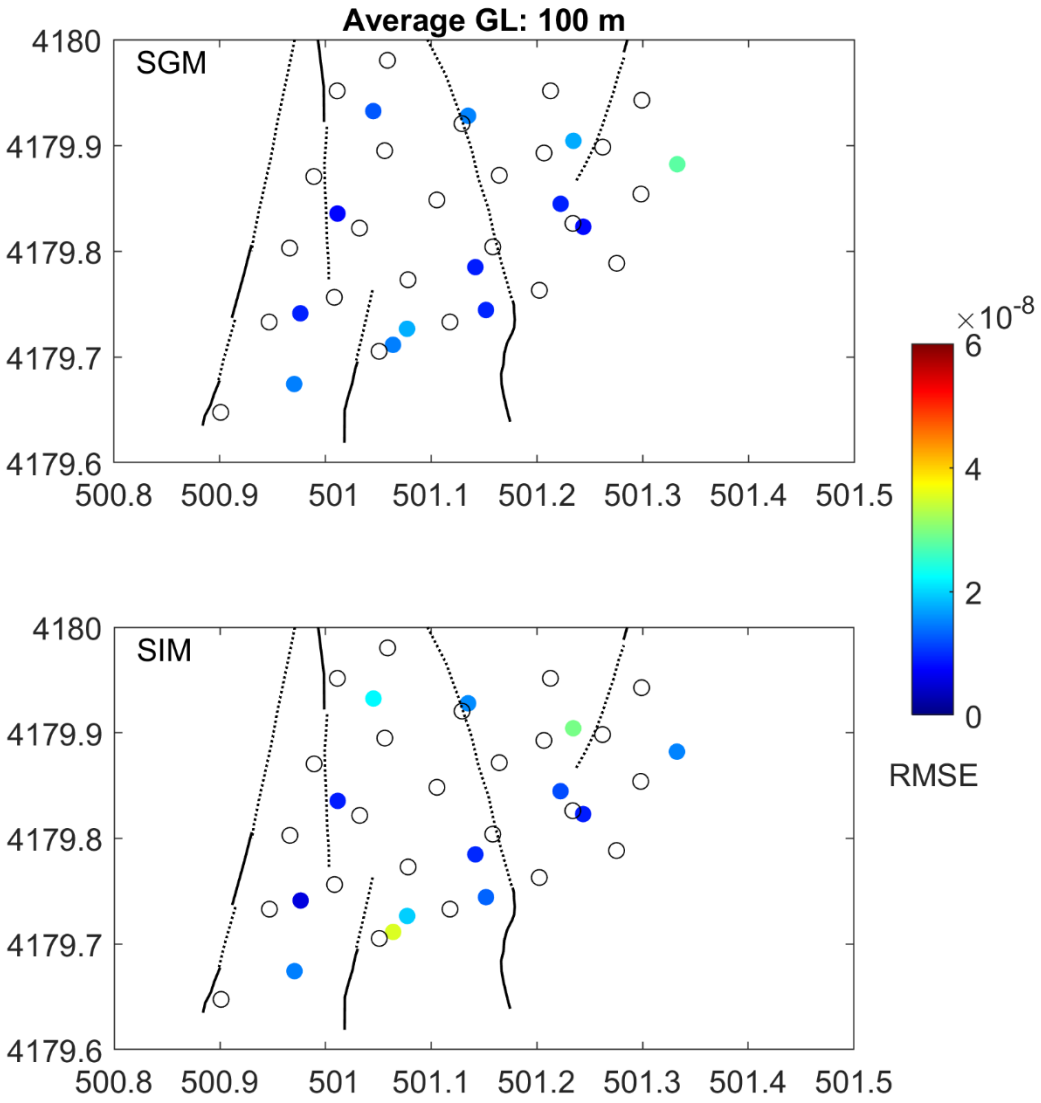

Figure S7: Misfits between the array derived strain and the DAS strain data (volcanic explosion on 6 July 2019) after increasing the gauge length to 100 m using a simple average.

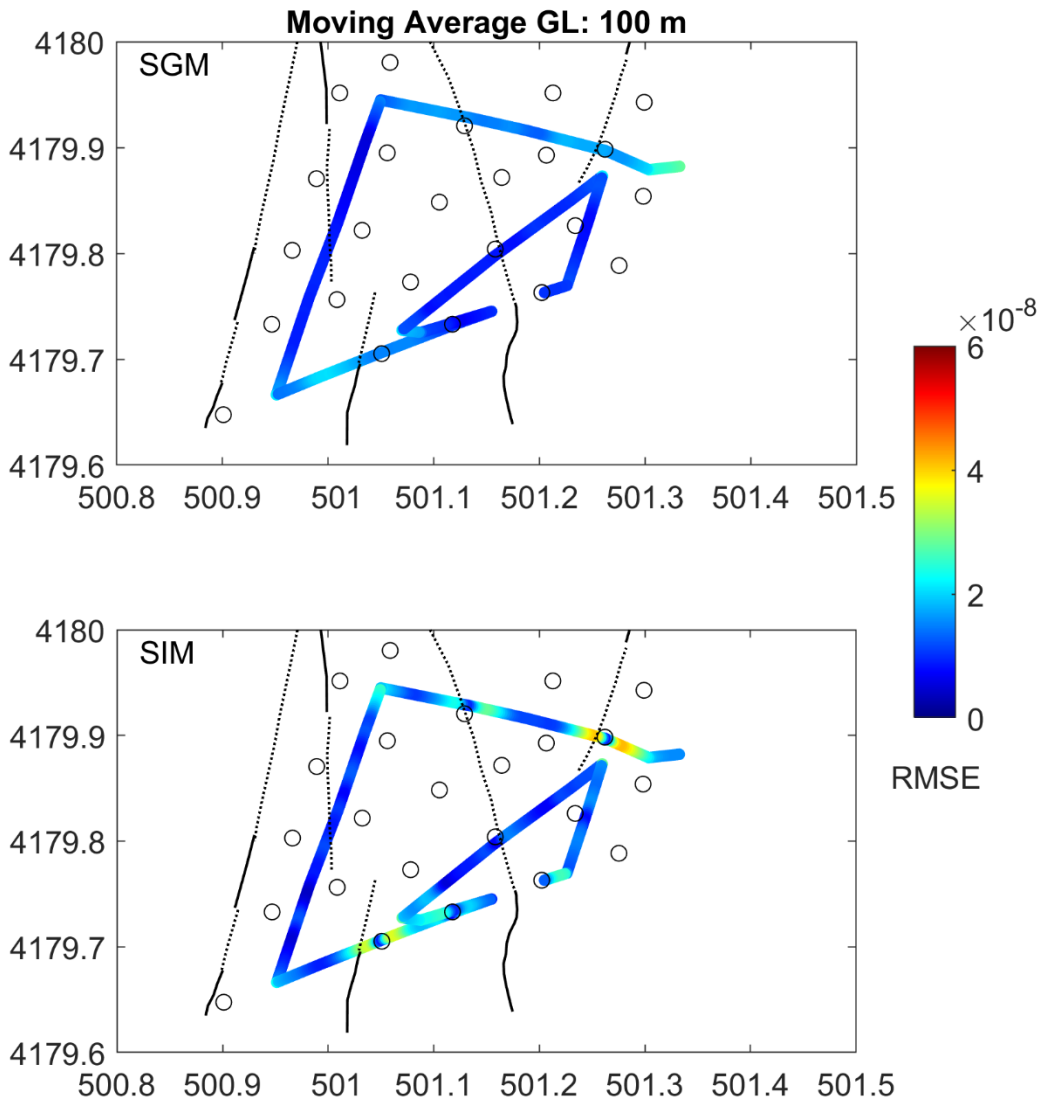

Figure S8: Misfits between the array derived strain and the DAS strain data (volcanic explosion on 6 July 2019) after increasing the gauge length to 100 m using a moving average.