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SuperSTAR-FO, the accelerometers for the GRACE-FO mission: improvement and evolution since GRACE

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SuperSTAR-FO, the accelerometer proposed for the GRACE Follow-On mission is very similar to the SuperSTAR models operating since ten years on board the twin GRACE satellites.

However, lessons learned from the GRACE mission and also from the six GRADIO models composing the three axis gravity gradiometer of the GOCE ESA mission, lead to minor modifications in the packaging and some electronics circuits, in particular for improving the thermal behaviour of the instrument.

The presentation will describe the evolution of the instrument, its performance, in particular in terms of thermal stability, and the ground testing philosophy in order to match the bias and scale factor of the instrument before launch.