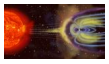
Written by Mateja Dumbovic
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A recent study by S. F. Odenwald from NASA/GSFC has shown that smartphone magnetometers can detect geomagnetic storms: “Smartphone magnetometers are being commercially explored for applications as diverse as locating customers in shopping malls for targeted advertising, to precision needle-guided surgery. Meanwhile, Earth’s geomagnetic field, whose measurement forms the basis for precision positing monitoring, varies on many timescales with significant amplitudes. This presents a challenge for high-precision position sensing that demands stability in the local geomagnetic field at the microTesla-level over timescales of minutes to hours. This study shows that many smartphone models have the sensitivity to detect geomagnetic storms caused by space weather, which means that under certain circumstances, geomagnetic storms could be a significant source of error in compass and other positioning applications. ” [Odenwald 2022]