



## **High Accuracy modelling of the crustal magnetic field over Europe**

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Measuring the magnetic field at the Earth's surface has been a long standing activity in Europe. Besides, an aeromagnetic compilation is now available and global crustal models are well correlated with known major magnetic anomalies. These three complementary datasets can be used jointly in order to produce a global magnetic anomaly map over Europe at high resolution.

We recently proposed a revised version of Spherical Cap Harmonics that is able to process data recorded at various altitudes (R-SCHA). Covering Europe with a patchwork of caps, and using all available data as an input for R-SCHA, we obtain vectorial magnetic models for the three component of the crustal field with a maximum resolution of 30km. These encouraging preliminary results suggest that R-SCHA could contribute significantly to the World Digital Magnetic Anomaly Map.