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Magnetic induction in the European crust by symmetric and asymmetric ring current features

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Large-scale induced magnetic structures in the European crust are evidenced by means of a magnetic induction model applied to geomagnetic observatory data. As the inducing force the magnetic field produced at the Earth's surface, at each observatory location, by the symmetric and asymmetric ring current features is used. The induction model expresses the external variation in data (annual means) as linear combination of the components of the inducing magnetic field. The induced magnetic structures are described by the lateral variation of the calculated model coefficients. The paper provides a means to discriminate between remanent and induced magnetizations in the lithosphere anomaly maps.