



## **Can Localization Constraints help to improve the reconstruction of spherical magnetizations?**

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Reconstructing a magnetization on a spherical surface from knowledge of the corresponding magnetic field outside that surface is known to be non-unique. There actually exists a general characterization of the contributions of the magnetizations that can be recovered. However, it is not so clear if there exist some realistic constraints that can improve this characterization of uniqueness and therefore allow to obtain more information on the magnetization based on measurements of the magnetic field. One such constraint could be to know in advance that the investigated magnetization is restricted to a certain region of the spherical surface. In this talk we want to illustrate the implications of such a localization constraint on the unique reconstruction of spherical magnetizations, in particular, of induced magnetizations.