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Alexander Kegeles* (alexander.kegeles@geophysik.tu-freiberg.de), Gustav-Zeuner-Str. 12, 09599 Freiberg, Germany. *Harmonic continuation of vector fields on Lipschitz surfaces*. Preliminary report.

On the sphere, every square-integrable vector field can be written as a sum of three: one, that has a harmonic extension to the inside of the sphere, one, that has a harmonic extension to the outside of the sphere, and one that is divergence-free on the sphere. This decomposition is known as the Hardy-Hodge decomposition. This decomposition allows us to use harmonic analysis to study some properties of square-integrable vector fields on a sphere. In this talk, I present our result in which we show how this decomposition generalizes to hold on Lipschitz surfaces. (Received September 14, 2020)