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# BERN-FRIBOURG GRADUATE SEMINAR

a seminar for Master and PhD students

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Thursday 15<sup>th</sup> May, 2025: 17:15 - 18:00

Room 2.52, Perolles 08, Fribourg

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## On the Existence of Harmonic Surfaces in Metric Spaces

### **Abstract**

In an important contribution to the rich study of harmonic maps from surfaces, Sacks and Uhlenbeck describe the existence of harmonic maps from 2-spheres into manifolds with non-trivial second fundamental group. Their approach builds on estimates computed using PDE techniques that do not extend to a metric setting. In this talk, I will give describe some key concepts that allow us to generalize some of the main results of Sacks-Uhlenbeck to a wide class of metric spaces. This is based on joint work with Damaris Meier and Stefan Wenger.