



UNIVERSIDAD TECNICA
FEDERICO SANTA MARIA

DEPARTAMENTO
DE MATEMÁTICA

Próximo Seminario DMAT

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SALA DE SEMINARIOS, DMAT

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Well-posedness of Cell Problems Associated with a Multiscale Model for Electromagnetic Media

In this talk, we establish the well-posedness of the micro-cell problems associated with a multiscale model for electromagnetic media derived by Blanco et al. in the paper *A novel multiscale model for micro-structured electromagnetic media*, *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 480:20240495, 2024. We also demonstrate a Poincaré type inequality under irregular setting. The results obtained can be fundamental for justifying the multiscale model mathematically in the future. This talk is based on the joint work with Prof. P. J. Blanco and Prof. A. A. Novotny, Submitted in Bull. London Math. Soc.