





Barcelona Analysis Seminar

Date: July 03, 2025Time: 15:00 CETRoom: CRM A1 (Universitat Autònoma de Barcelona)

## Morrey-Lorentz estimates for Hodge-Maxwell systems

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We will discuss about the boundary regularity in Morrey-Lorentz spaces for weak solutions to the following linear system of differential forms with regular anisotropic coefficients

$$d^* (Ad\omega) + B^T dd^* (B\omega) = \lambda B\omega + f \text{ in } \Omega,$$

with either  $\nu \wedge \omega$  and  $\nu \wedge d^*(B\omega)$  or  $\nu \lrcorner B\omega$  and  $\nu \lrcorner (Ad\omega)$  prescribed on  $\partial\Omega$ . Applications to Hodge decomposition in Morrey-Lorentz spaces, Gaffney-type inequalities, and estimates for related systems such as Hodge-Maxwell and 'div-curl' systems will be discussed.

This talk is based on a joint work with S.Sil.

More information at: https://mat.uab.cat/web/seminarianalisi/