

Free Boundary Problems in PDEs and Related Issues

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Título: Regularity theory for fully nonlinear double-divergence systems with free boundaries.

Resumo: I will discuss regularity estimates for fully nonlinear double-divergence system with free boundaries. We combine the regularity theory for fully nonlinear problems with the information on the double-divergence equation to produce gains of integrability/regularity for the solutions of the system. In addition, we prove the existence of minimizers for the cost functional depending on the Hessian and the existence of the solutions for fully nonlinear double-divergence system.