Existence and regularity results for some elliptic systems with mixed boundary conditions

Imane Boussetouan (Annaba, Algérie)

We consider some elliptic systems involving nonstandard mixed boundary conditions in a bounded domain, possibly multiply connected.

We prove the existence and uniqueness of weak and strong solutions of such problems in the Hilbert setting. Then, we generalize our results to the L^p-theory by virtue of some Inf-Sup conditions.