Paolo Salani

An overdetermined problem with non constant boundary condition

We prove existence, uniqueness and geometric properties of a domain Ω such that a solution to the following overdetermined problem exists: $\Delta u = -1$ in Ω, $u = 0$ on $\partial\Omega$, $|\nabla u(x)| = g(x)$ for $x \in \partial\Omega$, where g is a given homogeneous function in R^n.
This is a joint work with C. Bianchini and A. Henrot.