EDGE-BOUNDARY PROBLEMS WITH SINGULAR TRACE CONDITIONS

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ABSTRACT. The ellipticity of boundary value problems on a smooth manifold with boundary relies on a two-component principal symbolic structure $(\sigma_\psi, \sigma_\partial)$, consisting of interior and boundary symbols. In the case of a smooth edge on manifolds with boundary we have a third symbolic component, namely the edge symbol $\sigma_\wedge$, referring to extra conditions on the edge, analogously as boundary conditions. Apart from such conditions 'in integral form' there may exist singular trace conditions. Here we concentrate on the phenomena in combination with boundary conditions, edge problems and singular trace conditions. This is joint work with Professor B.-W. Schulze (Potsdam).