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ANALYTIC CONDITIONS IMPOSE TOPOLOGICAL RESTRICTIONS

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Abstract: I will describe results obtained in collaboration with H. Jacobowitz some years ago and recently with A. Bergamasco and S. Zani on topological consequences of assumptions made on differential operators. This is a problem of a global nature: the objects on which the operators act are functions (more generally sections of a complex vector bundle) on a compact manifold without boundary. The analytic conditions are either ellipticity, or global hypoellipticity. I will also pose an open problem concerning solvability in the large.