

General perversities and L^2 de Rham and Hodge theorems for stratified pseudomanifolds

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Given a compact stratified pseudomanifold with a Thom-Mather stratification and a class of riemannian metrics over its regular part, we study the relationships between the L^2 de Rham and Hodge cohomology and the intersection cohomology of XX associated to some perversities. More precisely, to a kind of metric which we call *quasi edge with weights*, we associate two general perversities in the sense of G. Friedman, p_g and its dual q_g . We then show that the absolute L^2 Hodge cohomology is isomorphic to the maximal L^2 de Rham cohomology and this is in turn isomorphic to the intersection cohomology associated to the perversity q_g . Moreover we prove that the relative L^2 Hodge cohomology is isomorphic to the minimal L^2 de Rham cohomology and this is in turn isomorphic to the intersection cohomology associated to the perversity p_g .

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