



An analytic approach to the stratified Morse inequalities for complex cones

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In a previous article the author extended the Witten deformation to singular spaces with cone-like singularities and to a class of Morse functions called admissible Morse functions. The method applies in particular to complex cones and stratified Morse functions in the sense of the theory developed by Goresky and MacPherson. It is well-known from stratified Morse theory that the singular points of the complex cone contribute to the stratified Morse inequalities in middle degree only. In this article an analytic proof of this fact is given.

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