

From Thom's gradient cell decomposition to the curvature of Milnor fibers and the log-canonical threshold

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In the early 1970's Thom tried to use a gradient cell decomposition for the Milnor fiber of an isolated complex hypersurface singularity to prove the finiteness of the monodromy. It did not work but he noted the geometric significance of the polar curve associated to the singularity and a general hyperplane direction. I will describe some of the several uses of the polar curve to obtain algebraic, topological and Lipschitz-geometric information about isolated hypersurface singularities.

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