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Mutsuo Oka* (oka@rs.kagu.tus.ac.jp), Depart. of Math., Faculty of Sciences, Tokyo, Univ. Science, 1-3 Kagurazaka, Shinjuku-ku, Tokyo, 162-8601. *Mixed functions of strongly polar weighted homogeneous face type*. Preliminary report.

Let $f(\mathbf{z}, \bar{\mathbf{z}})$ be a mixed polynomial with strongly non-degenerate face functions. Then there exists a canonical resolution $\pi : X \rightarrow \mathbb{C}^n$ of the hypersurface germ (V, \mathbf{o}) with $V = f^{-1}(0)$ such that π is a composition of a canonical toric modification $\pi_\Sigma : X_\Sigma \rightarrow \mathbb{C}^n$ and a polar modification $\pi_{\mathbb{R}} : X \rightarrow X_\Sigma$ along the exceptional divisors of π_Σ . In this talk, we assume that each face function is strongly polar weighted homogeneous and we will show that the toric modification already resolves the singularity of V and we give a generalization of Varchenko Theorem on the zeta function of the Milnor fibration. (Received November 17, 2011)