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*Hodge numbers of Landau-Ginzburg models*

Mirror symmetry predicts that $d$-dimensional Calabi-Yau manifolds should come in pairs $X$ and $X^\vee$ which, among other things, satisfy

$$h^{p,q}(X) = h^{d-p,q}(X^\vee).$$

Mirror symmetry also predicts that Fano manifolds admit mirror partners which are pairs $(Y, \mathrm{w})$ where $Y$ is a quasiprojective variety and w is a regular function on $Y$. Recently, Katzarkov, Kontsevich and Pantev have conjectured that a subtle form of Hodge number duality holds between Fano manifolds and their mirrors which relates the Hodge numbers of Fano varieties to the cohomology of complexes of "$f$-adapted logarithmic forms". I will discuss recent work which shows that the Hodge numbers of $(Y, \mathrm{w})$ can be computed in terms of classical Hodge theory and I will show that in dimensions 2 and 3, these Hodge numbers have very concrete interpretations.