

# Results

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## 1 Potentially useful results

**Proposition 1.1.** *Let  $\widehat{X} \rightarrow X$  be a small resolution of a Gorenstein terminal 3-fold  $X$  and  $\widetilde{X}$  a smoothing of  $X$ . Then the difference of the topological Euler numbers  $e(\widehat{X}) - e(\widetilde{X})$  equals the number  $2|\text{Sing}(X)|$  if and only if the singularities of  $X$  are ordinary double points.*

See [Wan16].

Might I be able to prove an analog of this for the type of singularities in my smoothing?

## References

- [Wan16] S.-S. Wang. On the connectedness of the standard web of Calabi-Yau 3-folds and small transitions. *ArXiv e-prints*, March 2016.