

We consider mirror pairs of Calabi-Yau hypersurfaces X and X' in toric varieties associated to dual reflexive polytopes. We will give a proof through tropical geometry that the Hodge numbers of X and X' are mirror symmetric. The proof goes by considering tropical homology, and works over the ring of integer numbers. In particular, we can use our spectral sequence with Kris Shaw to explore the connections between the topology of the real part of X and cohomological operations on X' .

This is based on joint work with Diego Matessi.