
URSULA WHITCHER, Mathematical Reviews

Zeta functions of alternate mirror Calabi-Yau pencils

We prove that if two Calabi-Yau invertible pencils in projective space have the same dual weights, then they share a common polynomial factor in their zeta functions related to a hypergeometric Picard-Fuchs differential equation. The polynomial factor is defined over the rational numbers and has degree greater than or equal to the order of the Picard-Fuchs equation. This talk describes joint work with Charles Doran, Tyler Kelly, Adriana Salerno, Steven Sperber, and John Voight.