

B. Ovrut: "Ricci-Flat Metrics and Scalar Laplacians on Calabi-Yau Threefolds"

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A mathematical/numerical algorithm is presented for computing Ricci-flat metrics on Calabi-Yau threefolds. This will be explicitly applied to quintics, Z_5XZ_5 quotients of quintics as well as to the Z_3XZ_3 threefold of the Heterotic Standard Model. Using these metrics, a procedure is given for explicitly calculating the eigenvalue/eigenfunction spectrum of the scalar Laplacian on these Calabi-Yau threefolds.

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