

Candelas, Philip; de la Ossa, Xenia; Rodriguez-Villegas, Fernando

Calabi-Yau manifolds over finite fields. II. (English) [\[Zbl 1100.14032\]](#)

Yui, Noriko (ed.) et al., Calabi-Yau varieties and mirror symmetry. Providence, RI: American Mathematical Society (AMS) (ISBN 0-8218-3355-3/hbk). Fields Inst. Commun. 38, 121-157 (2003).

The zeta functions for a one-parameter family of quintic threefolds, defined over a finite field, are calculated. The zeta functions of the mirror manifolds are also calculated by considering the corresponding toric varieties.

For the entire collection see [\[Zbl 1022.00014\]](#).

Reviewer: [J. W. P. Hirschfeld \(Falmer\)](#)

MSC:

[14J32](#) Calabi-Yau manifolds (algebraic-geometric aspects)

[14G10](#) Zeta functions and related questions in algebraic geometry (e.g., Birch-Swinnerton-Dyer conjecture)

[11G25](#) Varieties over finite and local fields

[14G15](#) Finite ground fields in algebraic geometry

Cited in **1** Review
Cited in **27** Documents

Keywords:

[Calabi-Yau manifold](#); [finite field](#); [zeta function](#)