

Zhou, Jie**Mirror symmetry for plane cubics revisited.** (English) [Zbl 1405.14106](#)

Ji, Lizhen (ed.) et al., Uniformization, Riemann-Hilbert correspondence, Calabi-Yau manifolds and Picard-Fuchs equations. Based on the conference, Institute Mittag-Leffler, Stockholm, Sweden, July 13–18, 2015. Somerville, MA: International Press; Beijing: Higher Education Press (ISBN 978-1-57146-363-0/pbk). Advanced Lectures in Mathematics (ALM) 42, 593-619 (2018).

Summary: In this expository note we discuss some arithmetic aspects of the mirror symmetry for plane cubic curves. We also explain how the Picard-Fuchs equation can be used to reveal part of these arithmetic properties. The application of Picard-Fuchs equations in studying the genus zero Gromov-Witten invariants of more general Calabi-Yau varieties and the Weil-Petersson geometry on their moduli spaces will also be discussed.

For the entire collection see [\[Zbl 1398.14003\]](#).

MSC:[14J33](#) Mirror symmetry (algebro-geometric aspects)[14H50](#) Plane and space curves[Cited in 1 Document](#)**Full Text:** [arXiv](#)