

**Yang, Yifan; Zudilin, Wadim**

**On  $Sp_4$  modularity of Picard-Fuchs differential equations for Calabi-Yau threefolds.** (English)

[Zbl 1283.11073](#)

Amdeberhan, Tewodros (ed.) et al., Gems in experimental mathematics. AMS special session on experimental mathematics, Washington, DC, January 5, 2009. Providence, RI: American Mathematical Society (AMS) (ISBN 978-0-8218-4869-2/pbk). Contemporary Mathematics 517, 381-413 (2010).

Summary: Motivated by the relationship of classical modular functions and Picard-Fuchs linear differential equations of order 2 and 3, we present an analogous concept for equations of order 4 and 5.

For the entire collection see [[Zbl 1193.00060](#)].

**MSC:**

- [11F23](#) Relations with algebraic geometry and topology
- [11F46](#) Siegel modular groups; Siegel and Hilbert-Siegel modular and automorphic forms
- [14J32](#) Calabi-Yau manifolds (algebraic-geometric aspects)
- [34M15](#) Algebraic aspects (differential-algebraic, hypertranscendence, group-theoretical) of ordinary differential equations in the complex domain
- [34M35](#) Singularities, monodromy and local behavior of solutions to ordinary differential equations in the complex domain, normal forms

Cited in **1** Document

**Full Text:** [arXiv Link](#)