

Chen, Yifei; Shokurov, Vyacheslav

Strong rational connectedness of toric varieties. (English) Zbl 1286.14064
Math. Res. Lett. 18, No. 6, 1227-1237 (2011).

A variety is rationally connected if there is a rational curve passing through two general points, and strongly rationally connected if there is a rational curve passing through every two points. The notion of strong rational connectedness was introduced by *B. Hassett* and *Y. Tschinkel* with an eye towards applications to weak approximation problems over function fields [*Pure Appl. Math. Q.* 4, No. 3, 743–766 (2008; [Zbl 1160.14040](#))].

C. Xu proved that the smooth locus of log del Pezzo surfaces is strongly rationally connected [*J. Reine Angew. Math.* 665, 189–205 (2012; [Zbl 1246.14064](#))].

The paper proves the strong rational connectedness of the smooth locus of toric varieties.

Reviewer: [Zhiyu Tian \(Pasadena\)](#)

MSC:

[14M25](#) Toric varieties, Newton polyhedra, Okounkov bodies

[14M22](#) Rationally connected varieties

Keywords:

[Toric varieties](#); [Rationally connected varieties](#)

Full Text: [DOI](#) [arXiv](#)