

# Rationality of rationally connected threefolds admitting non-isomorphic endomorphisms

De-Qi Zhang

(Submitted on 8 Nov 2010)

We prove a structure theorem for non-isomorphic endomorphisms of weak Q-Fano threefolds, or more generally for threefolds with big anti-canonical divisor. Also provided is a criterion for a fibred rationally connected threefold to be rational. As a consequence, we show (without using the classification) that every smooth Fano threefold having a non-isomorphic surjective endomorphism is rational.

Comments: Transactions of the American Mathematical Society, to appear; 21 pages

Subjects: **Algebraic Geometry (math.AG)**

MSC classes: 14E20, 14J45, 14E08, 32H50

Cite as: [arXiv:1011.1705v1](#) [math.AG]

## Submission history

From: De-Qi Zhang [[view email](#)]

[v1] Mon, 8 Nov 2010 03:38:05 GMT (23kb)

*[Which authors of this paper are endorsers?](#)*

## Download:

- [PDF](#)
- [PostScript](#)
- [Other formats](#)

Current browse context:

**math.AG**

[< prev](#) | [next >](#)

[new](#) | [recent](#) | [1011](#)

Change to browse by:

[math](#)

## References & Citations

- [NASA ADS](#)

## Bookmark([what is this?](#))

