

**Hwang, Jun-Muk**

**Geometry of minimal rational curves on Fano manifolds.** (English) [Zbl 1086.14506](#)

Demailly, J.P. (ed.) et al., School on vanishing theorems and effective results in algebraic geometry. Lecture notes of the school held in Trieste, Italy, April 25–May 12, 2000. Trieste: The Abdus Salam International Centre for Theoretical Physics (ISBN 92-95003-09-8/pbk). ICTP Lect. Notes 6, 335-393 (2001).

Summary: This lecture is an introduction to my joint project with N. Mok where we develop a geometric theory of Fano manifolds of Picard number 1 by studying the collection of tangent directions of minimal rational curves through a generic point. After a sketch of some historical background, the fundamental object of this project, the variety of minimal rational tangents, is defined and various examples are examined. Then some results on the variety of minimal rational tangents are discussed including an extension theorem for holomorphic maps preserving the geometric structure. Some applications of this theory to the stability of the tangent bundles and the rigidity of generically finite morphisms are given.

For the entire collection see [\[Zbl 0986.00053\]](#).

**MSC:**

[14J45](#) Fano varieties

Cited in **5** Reviews  
Cited in **33** Documents