

# Cryptology ePrint Archive: Report 2011/033

## The Geometry of Flex Tangents to a Cubic Curve and its Parameterizations

*Jean-Marc Couveignes and Jean-Gabriel Kammerer*

**Abstract:** We show how the study of the geometry of the nine flex tangents to a cubic produces many pseudo-parameterizations, including the ones given by Icart, Kammerer, Lercier, Renault and Farashahi.

**Category / Keywords:** public-key cryptography / elliptic curve cryptosystem

**Date:** received 19 Jan 2011, last revised 1 Sep 2011

**Contact author:** couveig at univ-tlse2 fr

**Available formats:** [Postscript \(PS\)](#) | [Compressed Postscript \(PS.GZ\)](#) | [PDF](#) | [BibTeX Citation](#)

**Note:** Two sections added.

**Version:** 20110902:054016 ([All versions of this report](#))

**Discussion forum:** [Show discussion](#) | [Start new discussion](#)

---

[ [Cryptology ePrint archive](#) ]