1047-12-464   **R. Patrick Morton*** (`pmorton@math.iupui.edu`), Dept. of Mathematical Sciences, IUPUI, LD 270, 402 N. Blackford St., Indianapolis, IN 46202. *Galois theory of iterated Euclidean constructions.*

Galois groups related to specific iterated Euclidean constructions will be discussed. Iterating the tritangent center construction of elementary geometry yields a sequence of points in the plane, whose coordinates generate abelian extensions of the base field defined by the coordinates of the vertices of the initial triangle. The construction is valid over arbitrary fields of characteristic not 2. (Received February 03, 2009)