

ZMATH 2013e.00404

Bracher, M.; Hetz, S.; Levitt, B.; Ontiveros, M.; Sewell, A.

Generalized continued fractions in real quadratic fields and Pell's equations.

JP J. Algebra Number Theory Appl. 22, No. 2, 211-223 (2011).

This is the result of a successful research experience for undergraduates (REU) project. The main result is the determination of the Rosen λ -fraction [*D. Rosen*, Duke Math. J. 21, 549–563 (1954; Zbl 0056.30703)] expansion of all units of the ring of integers of $\mathbb{Q}(\lambda)$ when $\lambda = \sqrt{d}$ with $d > 0$ square-free, thus generalizing a result of *D. Rosen* and *C. Towse* [Arch. Math. 77, No. 4, 294–302 (2001; Zbl 0992.11034)].

Thomas Schmidt (Corvallis)

Classification: F65

Keywords: continued fractions; Rosen fractions; Pell's equation; units in real quadratic fields

<http://www.pphmj.com/abstract/5945.htm>