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Mirela Ciperiani and **Daniel Krashen*** (daniel.krashen@yale.edu), Yale University,
Department of Mathematics, P.O. Box 208283, New Haven, CT 06511. *Relative Brauer groups of
genus 1 curves.*

In this talk we present methods for describing the relative Brauer group of genus 1 curves. These methods may be used to show that these relative Brauer group may be infinite (for certain ground fields), they may be used to determine this group explicitly for certain curves defined over the rational numbers, and can also help answer questions about splitting fields for genus 1 curves.

The techniques described have also been implemented in a computer program using Macaulay2 and pari to compute relative Brauer groups of certain genus 1 curves over the rational numbers. (Received January 09, 2007)