1116-VN-1965 **Harris B. Daniels**, **Jeffrey Hatley** and **James Ricci*** (jricci@daemen.edu), Daemen College, Department of Mathematics, 4380 Main Street, Amherst, NY 14226. *Elliptic curves with maximally disjoint division fields.*

One of the many interesting algebraic objects associated to a given rational elliptic curve, E, is its full-torsion representation $\rho_E : \mathrm{Gal}(\bar{\mathbf{Q}}/\mathbf{Q}) \to \mathrm{GL}_2(\hat{\mathbf{Z}})$. Generalizing this idea, one can create another full-torsion Galois representation, $\rho_{(E_1,E_2)} : \mathrm{Gal}(\bar{\mathbf{Q}}/\mathbf{Q}) \to \left(\mathrm{GL}_2(\hat{\mathbf{Z}})\right)^2$ associated to a pair (E_1, E_2) of rational elliptic curves. The goal of this talk is to provide an infinite number of concrete examples of pairs of elliptic curves whose associated full-torsion Galois representation $\rho_{(E_1,E_2)}$ has maximal image. (Received September 21, 2015)