1014-11-1153 **Ronald M. van Luijk*** (rmluijk@math.berkeley.edu) and **Adam M. Logan**. *Toward an explicit 2-descent on the Jacobian of a generic curve of genus 2.* Preliminary report.

Let C be a curve of genus 2 over a number field K and J its Jacobian. A 2-descent on J requires that we decide whether a given twist J' of J has a rational point over K. These twists are not easy to deal with as they are described by 72 quadrics in $\mathbb{P}^{15}$. The corresponding twists of the Kummer surface and its dual X associated to J are easier to handle. A twist X' of X can be embedded as the complete intersection of three quadrics in $\mathbb{P}^5$ and such an X' contains 32 lines. Generically these lines generate the Picard group of X'. The Galois action on the lines allows us to compute the algebraic Brauer group of X'. The elements of this group describe the Brauer-Manin obstructions to the existence of rational points. (Received September 27, 2005)