1023-14-1175     **Arsen Elkin\*** (`elkin@math.colostate.edu`), Department of Mathematics, 101 Weber Building, Colorado State University, Fort Collins, CO 80523, and **Yuri Zarhin** (`zarhin@math.psu.edu`), Department of Mathematics, Pennsylvania State University, University Park, PA 16802.
*Endomorphism algebras of hyperelliptic jacobians.*

We discuss algorithms for determination of the absolute endomorphism algebras of abelian varieties by examining the interaction of their action and the Galois action on various modules associated with abelian varieties, such as prime-order torsion, Tate modules, etc. Examples will be drawn from Jacobian varieties of hyperelliptic curves $y^2 = f(x)$ in characteristic different from 2. (Received September 25, 2006)