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([tu@math.lsu.edu](mailto:tu@math.lsu.edu)), 303 Locket Hall, Department of Mathematics, Louisiana State University,  
Baton Rouge, LA 70803. *Generalized Legendre Curves and Quaternionic Multiplication.*

We are going to construct abelian surfaces with quaternionic multiplication from certain generalized Legendre curves

$$y^N = x^i(1-x)^j(1-\lambda x)^k, \quad \lambda \in \mathbb{C}, N, i, j, k \in \mathbb{N}.$$

For a given generalized Legendre curve with parametr  $\lambda$ , we denote  $J_\lambda^{new}$  the primitive part of its Jacobian variety. In this talk, we will give a criterion for  $\text{End}(J_\lambda^{new})$  containing quaternion algebra when  $N = 3, 4, 6$ . (Received August 25, 2016)