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**Ricardo Conceicao\***, 100 Hamill st, Oxforg, GA 30054, and **Herivelto Borges**. *Minimal value set polynomials and a generalization of the Hermitian curve.*

We use minimal value set polynomials in the construction of curves over  $\mathbb{F}_q$  that generalize the hermitian curve. We compute the genus  $g$ , the number  $N$  of rational points and, in some cases, the Weierstrass semigroup at the point at infinity of such curves. We show that they provide new examples of Castle curves and improve on a previous example of Garcia-Stichtenoth of curves with large ratio  $N/g$ . Due to its many nice arithmetic and geometric properties, we expect that such curves are suitable to the construction of algebro-geometric codes with nice parameters. (Received July 08, 2014)