1042-53-39 Martha Dussan and Martin Magid* (mmagid@wellesley.edu), Department of Mathematics, Wellesley College, Wellesley, MA 02481. Timelike Christoffel pairs in the Split-Quaternions.

In this paper we characterize the Christoeffel pairs of timelike isothermic surfaces in the four-dimensional split-quaternions. When restricting the receiving space to the three-dimensional imaginary split-quaternions, we establish an equivalent condition for a timelike surface in \mathbb{R}^3_2 to be real or complex isothermic in terms of the existence of integrating factors.

(Received July 30, 2008)