1003-11-1492   **Marcos Zarzar*** (`zarzar@math.utexas.edu`), Department of Mathematics, 1 University Station C1200, Austin, TX 78712-0257. *Error-correcting codes on low rank surfaces.*

We construct some algebraic geometric error-correcting codes on surfaces whose Neron-Severi group has low rank. If the rank is 1, the intersection of this surface with an irreducible surface of low degree is an irreducible curve. This allows the construction of good codes. Surfaces with rank 1 are not easy to find, but we are able to find surfaces with low rank, and these are going to give us good codes too. (Received October 05, 2004)