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**Jonathan Webster\*** ([jwebster@bates.edu](mailto:jwebster@bates.edu)), Bates College: Department of Mathematics, 3 Andrews Road, Lewiston, ME 04240, and **Pieter Rozenhart**. *The Simplest Cubic Function Fields*. Preliminary report.

We present the Shanks' simplest cubic fields in the function field setting, and also generalize the notion of a set exceptional units to function fields, namely the notion of  $k$ -exceptional units. We give a simple proof that the Shanks family is the only family of cyclic cubic function fields of unit rank 2 having  $k$ -exceptional fundamental units as roots. Removing the requirement that the extension be Galois, we show that there exist many different families of cubic function fields with  $k$ -exceptional units which stands in contrast to the number field setting. (Received September 14, 2010)