1070-05-237   **Brent G Pohlmann*** (`aquaman55@gmail.com`), 58B Alvarado Street, San Francisco, CA 94110.
A Riemann–Roch Theorem For Acyclic Heaps Of Pieces. Preliminary report.

In a previous paper we introduced the notions of boundary vertex, linear equivalence and effective boundary vertex in the context of Viennot's heaps of pieces. These definitions were inspired in part by Baker and Norine's graph-theoretic analogue of the classical Riemann–Roch theorem. In light of these similarities it seems natural to pursue a Riemann–Roch theorem for acyclic heaps and pieces. In this paper, we attempt to show that the abstract Riemann–Roch criterion from Baker and Norine's paper holds for acyclic heaps of pieces. (Received February 13, 2011)