

8th International Conference on Symmetries and Integrability of Difference
Equations (SIDE8) **June 22–28, 2008**
8^e Conférence internationale “Symétrie et intégrabilité des équations aux
différences” (SIDE8) **22–28 juin, 2008**

Nevanlinna theory and diophantine approximation in integrable systems and beyond

Rodney Halburd

Department of Mathematics
University College London
Gower Street
London, WC1E 6BT
UNITED KINGDOM

R.Halburd@ucl.ac.uk

Abstract

I will describe how work in discrete integrable systems has led to difference versions of the central theorems of Nevanlinna theory (the theory of meromorphic functions). In the 1980s, Osgood and Vojta independently observed that there are close formal connections between Nevanlinna theory and Diophantine approximation. New results in Diophantine approximation, including a strong analogue of Nevanlinna’s second main theorem, will be presented.