KIRILL VANINSKY, Michigan State University
Poisson structures on meromorphic functions defined on Riemann surfaces and classical integrable models

In 1988 Atiyah and Hitchin introduced a Poisson bracket (PB) on meromorphic functions defined on the Riemann sphere. Can one replace the Riemann sphere by a Riemann surface of genus $g > 0$? Are there other natural Poisson structures? We survey recent progress in these problems. It is based on the theory of classical completely integrable systems.