Friday, March 17th (at 4.00pm, UK time)

Julia Bernatska (University of Connecticut)
Title: Solution of the Jacobi inversion problem on non-hyperelliptic curves.

ABSTRACT

A method of solving the Jacobi inversion problem in terms of multiply periodic wp-functions (also called Kleinian wp functions) is proposed.

This result is based on the recently developed theory of multivariable sigma functions for (n,s)-curves. Considering (n,s)-curves as canonical representatives in the corresponding classes of bi-rationally equivalent plane algebraic curves, it solves the Jacobi inversion problem on plane algebraic curves completely.

Explicit solutions on trigonal, tetragonal and pentagonal curves are given as an illustration.