FAKULTÄT FÜR WIRTSCHAFTSINFORMATIK UND WIRTSCHAFTSMATHEMATIK MANNHEIM

KOLLOQUIUM

GEOMETRY OF THE MOVING Poles of real solutions of Painleve III

Prof. Dr. Claus Hertling 05.05.2014. 17:15. A5, Raum C 0.12

In 1986 Its and Novokshenov studied the asymptotics and the moving poles of real solutions on the real positive line of one Painleve III equation of D6 type. They had results on the behaviour near 0 and near infinity. I will talk about the global geometry of the movable poles for all solutions together. This will lead to facts on the movable poles (and movable zeros) on the whole positive real line. Behind this is an interpretation of the corresponding isomonodromic connections as TERP-structures (or noncommutative Hodge structures) and results on them by T. Mochizuki, Sabbah and myself.