

1032-14-98

Arno Richardus van den Essen* (essen@math.ru.nl), Radboud University Nijmegen, Dept of Mathematics, Nijmegen, Netherlands. *The equivalence of the Jacobian, Dixmier and Poisson conjectures.*

The Jacobian Conjecture asserts that every polynomial map from complex n -space to itself is invertible if its Jacobian matrix is invertible. The Dixmier Conjecture asserts that every endomorphism of the n -dimensional Weyl algebra is an automorphism. It was recently shown by Tsuchimoto and independently by Belov and Kontsevich that both conjectures are equivalent. In this talk I will present a purely algebraic proof of this result and give one more equivalent formulation, the Poisson Conjecture. This is joint work with Pascal Adjagbo. (Received August 16, 2007)