1116-39-1484 **Teruhisa Tsuda*** (`tudateru@econ.hit-u.ac.jp`). *Hermite-Pade approximation, isomonodromic deformation and hypergeometric integral.*

This talk is based on a joint work with Toshiyuki Mano. (Ref: arXiv:1502.06695 [math.CA]) We develop an underlying relationship between the theory of rational approximations and that of isomonodromic deformations. We show that a certain duality in Hermite's two approximation problems leads to the Schlesinger transformations, i.e. transformations of a linear differential equation shifting its characteristic exponents by integers while keeping its monodromy invariant. Since approximants and remainders are described by block-Toeplitzs determinants, one can clearly understand the determinantal structure in isomonodromic deformations. We demonstrate our method in a certain family of Hamiltonian systems of isomonodromy type including the sixth Painlevé equation and Garnier systems; particularly, we present their solutions written in terms of iterated hypergeometric integrals. An algorithm for constructing the Schlesinger transformations is also discussed through vector continued fractions. (Received September 20, 2015)