1035-37-1641   **Anatole Katok*** (`katok_a@math.psu.edu`), Department of Mathematics, Pennsylvania State University, University Park, PA 16802. *On smooth conjugacy of dynamical systems.*

I will survey different methods of establishing that two dynamical systems and, more generally, groups actions on compact manifolds, are differentiably conjugate. Those include regularity of the structural stability conjugacy, KAM and combinatorics of invariant foliations. In the last few years significant progress has been achieved in all these directions. In particular, I will consider situations when locally in the space of systems smooth conjugacy can be determined by moduli. (Received September 20, 2007)