Maria Clara Nucci* (mariaclara.nucci@unipg.it), Department of Mathematics and Informatics, University of Perugia, 06123 Perugia, Italy. Quantizing with Noether symmetries; linearity and superintegrability; unusual Lagrangian systems: an overview.

We will illustrate our recent work on the following research themes: the role of Noether symmetries in quantizing classically Hamiltonian systems; the linearization of maximally superintegrable systems; the transformation of odd-order systems (e.g., in biology) into Lagrangian systems. (Received September 18, 2016)