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**Maria Clara Nucci\*** ([mariaclara.nucci@unipg.it](mailto: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)