

1. Record Nr.	UNINA9910300107203321
Titolo	Symmetries, Differential Equations and Applications : SDEA-III, stanbul, Turkey, August 2017 // edited by Victor G. Kac, Peter J. Olver, Pavel Winternitz, Teoman Özer
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2018
ISBN	3-030-01376-6
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (viii, 199 pages) : illustrations
Collana	Springer Proceedings in Mathematics & Statistics, , 2194-1017 ; ; 266
Disciplina	530.1430151604
Soggetti	Topological groups Lie groups Difference equations Functional equations Dynamical systems Differential equations Mathematics - Data processing Mathematical physics Topological Groups and Lie Groups Difference and Functional Equations Dynamical Systems Differential Equations Computational Mathematics and Numerical Analysis Theoretical, Mathematical and Computational Physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	P. J. Olver, Normal Forms for Submanifolds under Group Actions -- M. Gürses and A. Pekcan, Integrable Nonlocal Reductions -- A. Ruiz and C. Muriel, Construction of Solvable Structures from $so(3,C)$ -- H. M. Dutt and A. Qadir, Classification of Scalar Fourth Order Ordinary Differential Equations Linearizable via Generalized Lie-Bäcklund Transformations -- R. Mohanasubha, V. K. Chandrasekar, M. Senthilvelan and M. Lakshmanan, On the Symmetries of a Liénard Type Nonlinear Oscillator

Equation -- S. V. Meleshko, Symmetries of Equations with Nonlocal Terms -- R. Naz and F. M. Mahomed, A note on the Multiplier Approach for Derivation of Conservation Laws for Partial Differential Equations in the Complex Domain -- B. Muriel, J. L. Romero and A. Ruiz, The Calculation and Use of Generalized Symmetries for Second-Order Ordinary Differential Equations -- A. Aslam, A. Qadir and M. Safdar, Differential Invariants for Two and Three Dimensional Linear Parabolic Equations -- O. K. Pashaev and A. Koçak, Kaleidoscope of Classical Vortex Images and Quantum Coherent States. .

---

#### Sommario/riassunto

Based on the third International Conference on Symmetries, Differential Equations and Applications (SDEA-III), this proceedings volume highlights recent important advances and trends in the applications of Lie groups, including a broad area of topics in interdisciplinary studies, ranging from mathematical physics to financial mathematics. The selected and peer-reviewed contributions gathered here cover Lie theory and symmetry methods in differential equations, Lie algebras and Lie pseudogroups, super-symmetry and super-integrability, representation theory of Lie algebras, classification problems, conservation laws, and geometrical methods. The SDEA III, held in honour of the Centenary of Noether's Theorem, proven by the prominent German mathematician Emmy Noether, at Istanbul Technical University in August 2017 provided a productive forum for academic researchers, both junior and senior, and students to discuss and share the latest developments in the theory and applications of Lie symmetry groups. This work has an interdisciplinary appeal and will be a valuable read for researchers in mathematics, mechanics, physics, engineering, medicine and finance.

---