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Collana	Contemporary mathematics, , 0271-4132 ; ; 219
Disciplina	514/.23
Soggetti	Homology theory Quantum field theory Differential equations, Partial - Numerical solutions Mathematical physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	<p>""Contents""; ""Acknowledgments""; ""Foreword""; ""Unstable bundles in quantum field theory""; ""Brackets in the jet-bundle approach to field theory""; ""The BRST structure of twisted N = 2 algebra""; ""Anomalies and locality in field theories and M-theory""; ""Gauge covariant algebras and local BRST cohomology""; ""Generalized homologies for dN = 0 and graded q-differential algebras""; ""Nonlinear control and diffieties, with an application to physics""; ""Consistent interactions between gauge fields: the cohomological approach""</p> <p>""A compatible analytic manifold structure for Lie pseudogroups of infinite type""""Cohomology background in geometry of PDE""; ""1. Bracket formalism in commutative algebras""; ""2. Connections and cohomologies""; ""3. Nonlinear differential equations: C-cohomologies, deformations and recursion operators""; ""4. Nonlocal and superextensions""; ""5. Concluding remarks""; ""Acknowledgments""; ""References""; ""Algebraic renormalization of massive supersymmetric theories""; ""A new look at completely integrable systems and double</p>

Lie groups"; "Quantum dynamics of 3-D vortices"

"The (secret?) homological algebra of the Batalin-Vilkovisky approach"  
1. The jet bundle setting for Lagrangian field theory"; 2. Anti-fields as Koszul generators"; 3. Noether identities and Tate generators"; 4. Ghosts and the anti-bracket"; 5. The Batalin-Vilkovisky complex (BV,  $s=$ ); 6. The BV version of the variational bicomplex"; 7. The Master Equation and Higher Homotopy Algebra"; 8. Deformation Theory and the Master Equation in Field Theory"; 9. Quantization and other puzzles"; "References"; "Notes on the horizontal cohomology"

"Invariants of rational transformations and algebraic entropy"  
Introduction to Secondary Calculus"; 1. Infinite jets"; 2. Infinite prolongations of PDE's and diffieties"; 3. Higher symmetries of PDE's"; 4. The C-spectral sequence"; 5. The structure of the term  $CE_1$  for  $0 = ] 00$ "; 6. The structure of the term  $CE_1$  for  $0 = A\infty$ "; 7. The conception of Secondary Calculus: vector fields and differential forms"; 8. Secondary modules"; 9. Secondary modules and flat connections"; 10. a??-C-spectral sequence"  
11. Secondary multi-vector-valued differential forms: an example of secondarization"  
12. Secondarization versus quantization"; 13. Bibliography and comments"; "Acknowledgments"; "References"; "On multiple generalizations of Lie algebras and Poisson manifolds"

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