

Selected Works of Phillip A. Griffiths: With Commentary (Part 1, 2, 3 & 4)

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Description

Over the last four decades, Phillip Griffiths has been a central figure in mathematics. He has made crucial contributions in several fields, including complex analysis, algebraic geometry, and differential systems. His books and papers are distinguished by a remarkably lucid style that allows the reader to comprehend not only the subject at hand, but also the connections among seemingly unrelated areas of mathematics. Even today, many of Griffiths' papers are used as a standard source on a subject. Another important feature of Griffiths' writings is that they often bring together classical and modern mathematics.

The four parts of Selected Works—Analytic Geometry, Algebraic Geometry, Variations of Hodge Structures, and Differential Systems—are organized according to the subject matter and are supplemented by Griffiths' brief, but extremely illuminating, personal reflections on the mathematical content and the times in which they were produced. Griffiths' Selected Works provide the reader with a panoramic view of important and exciting areas of mathematics during the second half of the 20th century.

Part 1: Analytic Geometry

ISBN: 0-8218-2086-9, 654 page

Part 2: Algebraic Geometry

ISBN: 0-8218-2087-7, 782 page

Part 3: Variations of Hodge Structures

ISBN: 0-8218-2088-5, 564 page

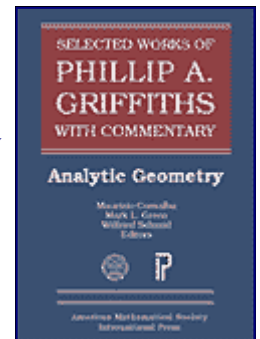
Part 4: Differential Systems

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Some Current Topics on Nonlinear Conservation Laws: Lectures at the Morningside Center of Mathematics

Description

This volume resulted from a year-long program at the Morningside Center of Mathematics at the Academia Sinica in Beijing. It presents an overview of nonlinear conservation laws and introduces developments in this expanding field. Xin's introductory overview of the subject is followed by lecture notes of leading experts who have made fundamental contributions to this field of research. A. Bressan's theory of L^1 -well-posedness for entropy weak solutions to systems of nonlinear hyperbolic conservation laws in the class of viscosity solutions is one of the most important results in the past two decades; G. Chen discusses weak convergence methods and various applications to many problems; P. Degond details mathematical modelling of semi-conductor devices; B. Perthame describes the theory of asymptotic equivalence between conservation laws and singular kinetic equations; Z. Xin outlines the recent development of the vanishing viscosity problem and nonlinear stability of elementary wave—a major focus of research in the last decade; and the volume concludes with Y. Zheng's lecture on incompressible fluid dynamics.

This collection of lectures represents previously unpublished expository and research results of experts in nonlinear conservation laws and is an excellent reference for researchers and advanced graduate students in the areas of nonlinear partial differential equations and nonlinear analysis.

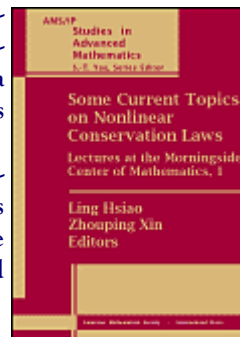


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5. Z. Xin ~ Theory of viscous conservation laws
6. Y. Zheng ~ Some problems of incompressible fluid dynamics

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