

Singularities of integrals

Homology, hyperfunctions and microlocal analysis

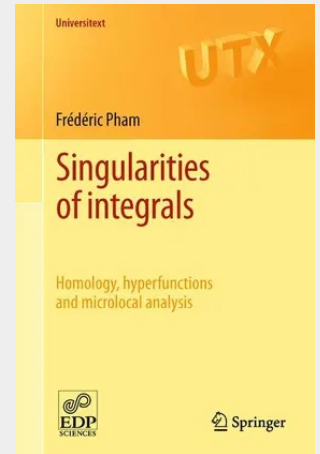
Bringing together two fundamental texts from Frédéric Pham's research on singular integrals, the first part of this book focuses on topological and geometrical aspects while the second explains the analytic approach. Using notions developed by J. Leray in the calculus of residues in several variables and R. Thom's isotopy theorems, Frédéric Pham's foundational study of the singularities of integrals lies at the interface between analysis and algebraic geometry, culminating in the Picard-Lefschetz formulae. These mathematical structures, enriched by the work of Nilsson, are then approached using methods from the theory of differential equations and generalized from the point of view of hyperfunction theory and microlocal analysis.

Providing a 'must-have' introduction to the singularities of integrals, a number of supplementary references also offer a convenient guide to the subjects covered.

This book will appeal to both mathematicians and physicists with an interest in the area of singularities of integrals.

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