



The Flow Associated to Weakly Differentiable Vector Fields

By Gianluca Crippa

Birkhauser Verlag AG. Paperback. Book Condition: new. BRAND NEW, The Flow Associated to Weakly Differentiable Vector Fields, Gianluca Crippa, The aim of this book is to provide a self-contained introduction and an up-to-date survey on many aspects of the theory of transport equations and ordinary differential equations with non-smooth velocity fields. The interest in this topic is motivated by important issues in nonlinear PDEs, in particular conservation laws and fluid mechanics. A fascinating feature of this research area, which is currently of concern in mathematics, is the interplay between PDE techniques and geometric measure theory techniques. Several masterpieces appear in the related literature, balancing completely rigorous proofs with more heuristic arguments. A consistent part of the book is based on results obtained by the author in collaboration with other mathematicians. After a short introduction to the classical smooth theory, the book is divided into two parts. The first part focuses on the PDE aspect of the problem, presenting some general tools of this analysis, many well-posedness results, an abstract characterization of the well-posedness, and some examples showing the sharpness of the assumptions made. The second part, instead, deals with the ODE aspect of the problem, respectively by an abstract connection...



[READ ONLINE](#)
[4.02 MB]

Reviews

A whole new eBook with a brand new point of view. It is really simplistic but surprises in the fifty percent of the publication. I am just effortlessly can get a delight of looking at a written ebook.

-- **Mariano Gleichner**

Very useful to all of class of individuals. This really is for all those who stante there had not been a worthy of looking at. I am just very happy to let you know that here is the finest ebook i have got go through within my individual daily life and might be he finest ebook for actually.

-- **Delores Mitchell PhD**