1. Record Nr. UNINA9910299984403321 Autore Jafarpour Saber **Titolo** Time-Varying Vector Fields and Their Flows / / by Saber Jafarpour, Andrew D. Lewis Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2014 **ISBN** 3-319-10139-0 Edizione [1st ed. 2014.] Descrizione fisica 1 online resource (125 p.) Collana SpringerBriefs in Mathematics, , 2191-8198 514.72 Disciplina Soggetti System theory **Dynamics** Ergodic theory Topological groups Lie groups Systems Theory, Control Dynamical Systems and Ergodic Theory Topological Groups, Lie Groups 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 at the end of each chapters. Nota di contenuto Introduction -- Fibre Metrics for Jet Bundles -- Finitely Differentiable. Lipschitz, and Smooth Topologies -- The COhol-topology for the Space of Holomorphic Vector Fields -- The Cw-topology for the Space of Real Analytic Vector Fields -- Time-Varying Vector Fields -- References. This short book provides a comprehensive and unified treatment of Sommario/riassunto time-varying vector fields under a variety of regularity hypotheses. namely finitely differentiable, Lipschitz, smooth, holomorphic, and real analytic. The presentation of this material in the real analytic setting is new, as is the manner in which the various hypotheses are unified using functional analysis. Indeed, a major contribution of the book is the coherent development of locally convex topologies for the space of real analytic sections of a vector bundle, and the development of this in a manner that relates easily to classically known topologies in, for

> example, the finitely differentiable and smooth cases. The tools used in this development will be of use to researchers in the area of geometric