Record Nr. UNINA9910254206203321 Dense Image Correspondences for Computer Vision / / edited by Tal **Titolo** Hassner, Ce Liu Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2016 **ISBN** 3-319-23048-4 Edizione [1st ed. 2016.] Descrizione fisica 1 online resource (302 p.) 620 Disciplina Signal processing Soggetti Image processing Speech processing systems Optical data processing Artificial intelligence Electrical engineering Signal, Image and Speech Processing Image Processing and Computer Vision Artificial Intelligence Communications Engineering, Networks 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 Introduction to Dense Optical Flow -- SIFT Flow: Dense Correspondence across Scenes and its Applications -- Dense, Scale-Less Descriptors -- Scale-Space SIFT Flow -- Dense Segmentationaware Descriptors -- SIFTpack: A Compact Representation for Efficient SIFT Matching -- In Defense of Gradient-Based Alignment on Densely Sampled Sparse Features -- From Images to Depths and Back --DepthTransfer: Depth Extraction from Video Using Non-parametric Sampling -- Joint Inference in Image Datasets via Dense Correspondence -- Dense Correspondences and Ancient Texts. Sommario/riassunto This book describes the fundamental building-block of many new

computer vision systems: dense and robust correspondence estimation. Dense correspondence estimation techniques are now successfully

being used to solve a wide range of computer vision problems, very different from the traditional applications such techniques were originally developed to solve. This book introduces the techniques used for establishing correspondences between challenging image pairs, the novel features used to make these techniques robust, and the many problems dense correspondences are now being used to solve. The book provides information to anyone attempting to utilize dense correspondences in order to solve new or existing computer vision problems. The editors describe how to solve many computer vision problems by using dense correspondence estimation. Finally, it surveys resources, code, and data necessary for expediting the development of effective correspondence-based computer vision systems.

Provides in-depth coverage of dense-correspondence estimation. Covers both the breadth and depth of new

estimation · Covers both the breadth and depth of new achievements in dense correspondence estimation and their applications · Includes information for designing computer vision systems that rely on efficient and robust correspondence estimation .