Record Nr. UNINA9910299693303321 Autore Yu Gang Titolo Human action analysis with randomized trees // by Gang Yu, Junsong Yuan, Zicheng Liu Singapore:,: Springer Singapore:,: Imprint: Springer,, 2015 Pubbl/distr/stampa **ISBN** 981-287-167-5 Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (90 p.) SpringerBriefs in Signal Processing, , 2196-4076 Collana Disciplina 150.721 Soggetti Signal processing Image processing Speech processing systems Optical data processing **Probabilities** Signal, Image and Speech Processing Image Processing and Computer Vision Probability Theory and Stochastic Processes 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 Human Action Analysis -- Supervised Trees for Human Action Recognition and Detection -- Unsupervised Trees for Human Action Search -- Propagative Hough Voting to Leverage Contextual Information -- Human Action Prediction with Multi-class Balanced Random Forest -- Conclusion. Sommario/riassunto This book will provide a comprehensive overview on human action analysis with randomized trees. It will cover both the supervised random trees and the unsupervised random trees. When there are

This book will provide a comprehensive overview on human action analysis with randomized trees. It will cover both the supervised random trees and the unsupervised random trees. When there are sufficient amount of labeled data available, supervised random trees provides a fast method for space-time interest point matching. When labeled data is minimal as in the case of example-based action search, unsupervised random trees is used to leverage the unlabelled data. We describe how the randomized trees can be used for action classification, action detection, action search, and action prediction. We will also describe techniques for space-time action localization including branch-and-bound sub-volume search and propagative