

**Record 1 of 1****Title:** Dense and Sparse Optic Flows Aggregation for Accurate Motion Segmentation in Monocular Video Sequences**Author(s):** Fagadar-Cosma, M (Fagadar-Cosma, Mihai); Cretu, VI (Cretu, Vladimir-Ioan); Micea, MV (Micea, Mihai Victor)**Editor(s):** Campilho A; Kamel M**Source:** IMAGE ANALYSIS AND RECOGNITION, PT I **Book Series:** Lecture Notes in Computer Science **Volume:** 7324 **Pages:** 208-215 **Published:** 2012**Times Cited in Web of Science:** 1**Total Times Cited:** 1**Cited Reference Count:** 13

**Abstract:** This paper proposes a new approach to motion segmentation in video sequences based on the aggregation of velocity fields produced by dense and sparse optic flow estimators. In the beginning, sparse optic flow information is used to identify a set of control points on moving objects. The next step relies on dense optical flow to cluster the set of control points and determine the concave hull of moving image regions. In the final step, the silhouette of these regions is extracted using active contours. The result of the proposed algorithm is a pixel-accurate motion mask that can serve as input in various scenarios ranging from surveillance systems to videoconferencing applications.

**Accession Number:** WOS:000323558000025**Language:** English**Document Type:** Proceedings Paper**Conference Title:** 9th International Conference on Image Analysis and Recognition (ICIAR)**Conference Date:** JUN 25-27, 2012**Conference Location:** Aveiro, PORTUGAL**Conference Sponsors:** Assoc Image & Machine Intelligence (AIMI)**Author Keywords:** optical flow; motion analysis; segmentation; aggregation**Addresses:** [Fagadar-Cosma, Mihai; Cretu, Vladimir-Ioan; Micea, Mihai Victor] Politehn Univ Timisoara, Dept Comp Sci, Timisoara, Romania.**Reprint Address:** Fagadar-Cosma, M (reprint author), Politehn Univ Timisoara, Dept Comp Sci, Timisoara, Romania.**E-mail Addresses:** mfagadar@yahoo.com; vcretu@cs.upt.ro; mihai.micea@cs.upt.ro**Publisher:** SPRINGER-VERLAG BERLIN**Publisher Address:** HEIDELBERGER PLATZ 3, D-14197 BERLIN, GERMANY**Web of Science Categories:** Computer Science, Artificial Intelligence; Computer Science, Theory & Methods; Imaging Science & Photographic Technology**Research Areas:** Computer Science; Imaging Science & Photographic Technology**IDS Number:** BGN34**ISSN:** 0302-9743**ISBN:** 978-3-642-31295-3**29-char Source Abbrev.:** LECT NOTES COMPUT SC**Source Item Page Count:** 8