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(54) Title: METHOD AND SYSTEM FOR ESTIMATING MOTION WITHIN A VIDEO SEQUENCE

(57) Abstract

The present invention provides a method and system for estimating the motion within a video sequence. The invention provides very accurate estimates of both the displacement vector field, as well as, the boundaries of moving objects. The system comprises a preprocessor (102), a spatially adaptive pixel motion estimator (104), a motion boundary estimator (106), and a motion analyzer (108). The preprocessor (102) provides a first estimate of the displacement vector field, and the spatially adaptive pixel motion estimator (104) provides a first estimate of object boundaries. The motion boundary estimator (106) and the motion analyzer (108) improve the accuracy of the first estimates.

