

Recovering Shape of Deformable objects by Factorization

Abstract

A technique is described for recovering motions of individuals in a 3-D way employing multiple video cameras. The technique extends the measurement matrix employed in the factorization method so that it includes motion information. Advantages of the proposed technique over others include that it is free from video cameras' calibration placed around interested individuals and that it recovers their entire motions during an observation time all at once. The former contributes to simple video acquisition of motions, whereas the latter eliminates the step of motion registration in the time direction. Some experimental results are shown.