Record Nr. UNISA996465493103316 Autore Scharstein Daniel Titolo View synthesis using stereo vision / / Daniel Scharstein Pubbl/distr/stampa Berlin; ; Heidelberg:,: Springer,, [1999] ©1999 **ISBN** 3-540-48725-5 Edizione [1st ed. 1999.] Descrizione fisica 1 online resource (XVI, 172 p.) Collana Lecture Notes in Computer Science; ; 1583 Disciplina 006.37 Soggetti Computer vision Image processing - Digital techniques Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di bibliografia Includes bibliographical references. Nota di contenuto A Survey of Image-Based Rendering and Stereo -- View Synthesis --Re-evaluating Stereo -- Gradient-Based Stereo -- Stereo Using Diffusion -- Conclusion. Sommario/riassunto Image-based rendering, as an area of overlap between computer graphics and computer vision, uses computer vision techniques to aid in sythesizing new views of scenes. Image-based rendering methods are having a substantial impact on the field of computer graphics, and also play an important role in the related field of multimedia systems, for applications such as teleconferencing, remote instruction and surgery, virtual reality and entertainment. The book develops a novel way of formalizing the view synthesis problem under the full perspective model, vielding a clean, linear warping equation. It shows new techniques for dealing with visibility issues such as partial occlusion and "holes". Furthermore, the author thoroughly re-evaluates the requirements that view synthesis places on stereo algorithms and

introduces two novel stereo algorithms specifically tailored to the

application of view synthesis.