Internet Stereo:
Accurate 3D Shape from Photos on the Internet

Michael Goesele
Noah Snavely
Brian Curless
Hugues Hoppe
Steven M. Seitz

University of Washington
GRIS, TU Darmstadt
Microsoft Research
Shape from Internet Photos

82,754 results for photos matching *notre* and *dame* and *paris*.
Shape from Internet Photos

recover camera locations and scene points (Photo Tourism) [Snavely, et al 2006]
dense multi-view stereo reconstruction
Classical Multi-View Stereo

reference view

neighboring views
Multi-View Stereo for Internet Photos

reference view

neighboring views

reference view

neighboring views
Law of Large Image Collections in a large Internet photo collection of a static scene, … for every image there are likely other images with similar appearance.
206 *Flickr* images taken by 92 photographers
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Results

Mt. Rushmore
160 images
60 photographers

St. Peter
151 images
50 photographers

Trevi Fountain
106 images
51 photographers
Statue of Liberty

- 72 images taken by 29 photographers
- depth maps merged using Poisson surface reconstruction [Kazhdan et al 2006]
Notre Dame de Paris

653 images
313 photographers
Venus de Milo

129 images taken by 98 photographers
Venus de Milo
Duomo (Pisa)

56 images taken by 8 photographers
90% of reconstruction within 12.8 cm of ground truth for a 51 m tall building using the metric of [Seitz et al. 2006]
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Rick Szeliski

Michael Goesele
TU Darmstadt

Brian Curless
University of Washington

Steve Seitz

Hugues Hoppe
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