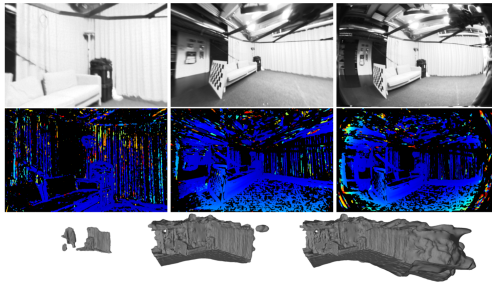


Real-Time Direct Dense Matching on Fisheye Images Using Plane-Sweeping Stereo

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- ▶ An adaptation of camera projection models for fisheye cameras into the plane-sweeping stereo matching algorithm
- ▶ Depth maps computed directly from the fisheye images to cover a larger part of the scene with fewer images
- ▶ Plane-sweeping approach over rectification:
 - ▶ Suitable for more than two images
 - ▶ Well-suited to GPUs for real-time performance
- ▶ Requirement: Efficient projection and unprojection
- ▶ Two different camera models: the unified projection and the field-of-view (FOV)
- ▶ Unified projection model also works for other non-pinhole cameras such as omnidirectional and catadioptric cameras.
- ▶ Simple, real-time approach for full, good quality and high resolution depth maps