



COLMAP on BRUTUS

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AIM

3D Point-Cloud and Surface Mesh Rendering using COLMAP on Brutus Dataset

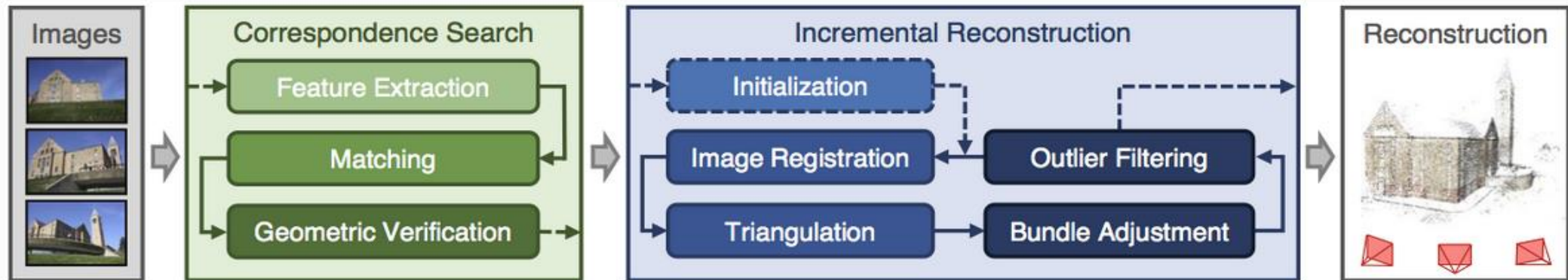
BRUTUS Dataset



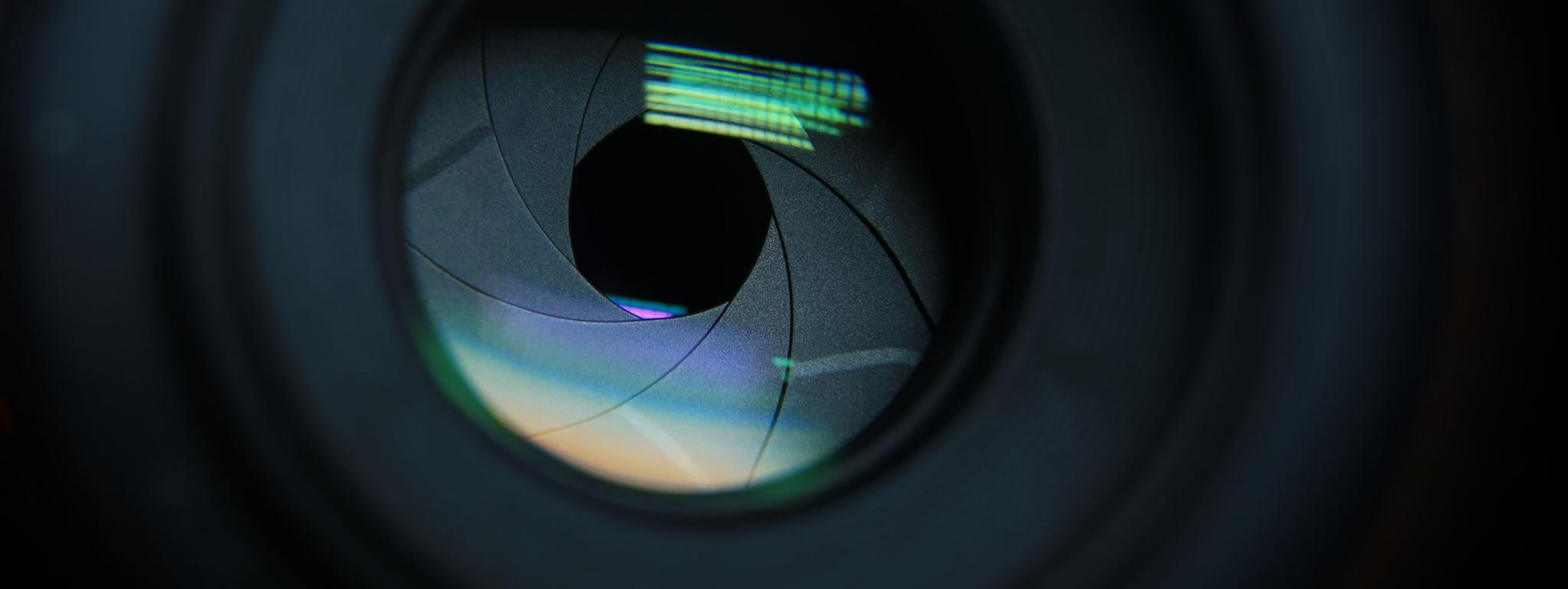
- Multi-camera mid-range system
- Panoramic light field video content.
- FOV > 220 (total)
- Resolution: 3696x2772 @ 59.94
- 190 FOV
- 24 cameras

COLMAP

Structure-from-Motion (SFM) and Multi-View Stereo (MVS) pipeline.

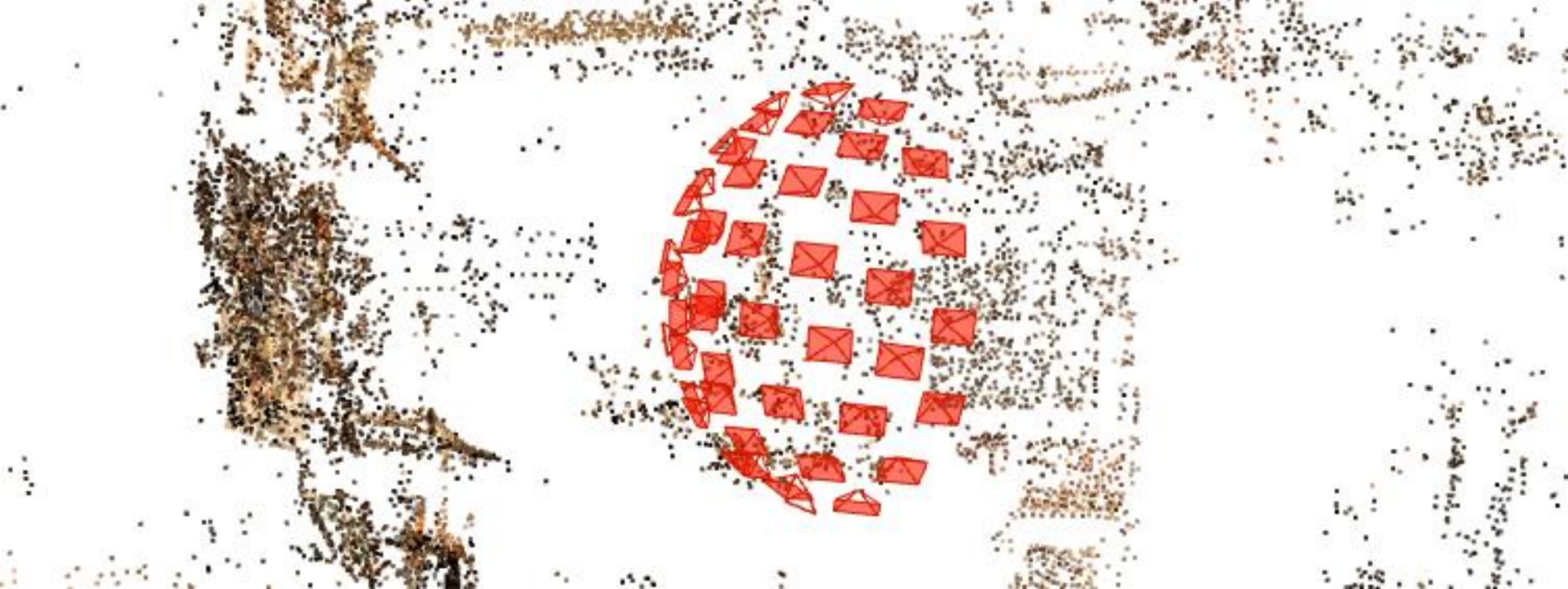


COLMAP's incremental Structure-from-Motion pipeline.



DEMO

We will continue to the actual software to showcase my contributions and the working of the project.



Sparse Model

The dots represent features plotted by SFM. The red rectangles are the cameras.



Stereo Fused

A dense model from Brutus dataset. This was the best render without the intrinsic parameters.



Poisson Meshing

Surface Mesh Render using Poisson. Most outliers are deleted hence a incoherent model is created.