

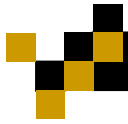


# The Graph Camera

Paul Rosen

Voicu Popescu

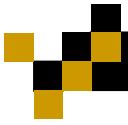
Nicoletta Adamo-Villani



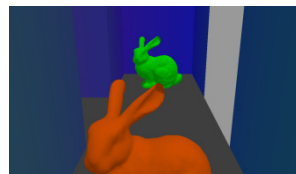
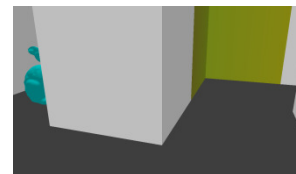
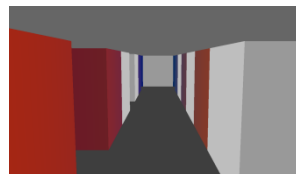
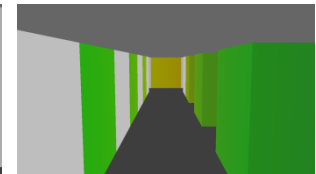
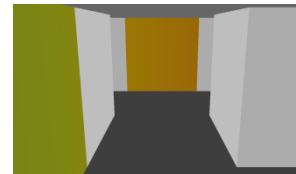
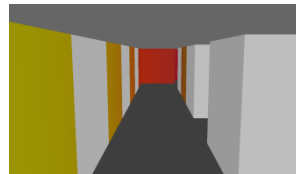
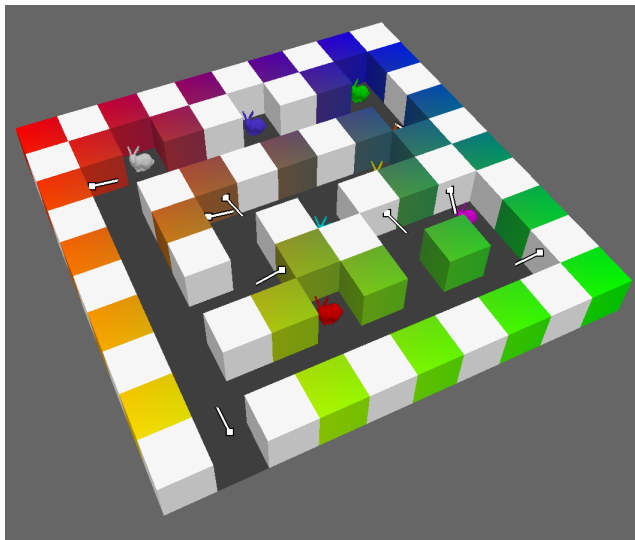
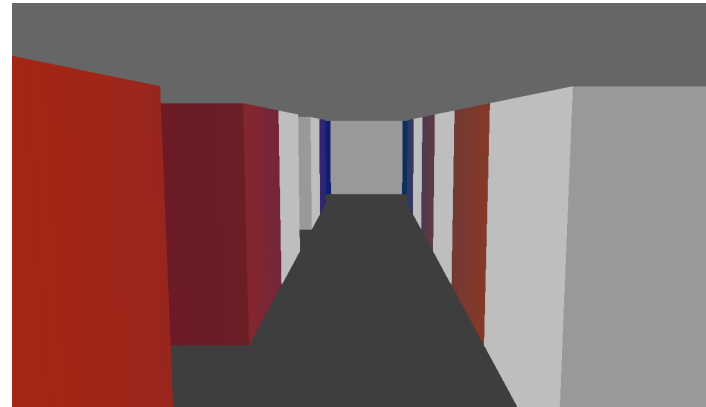
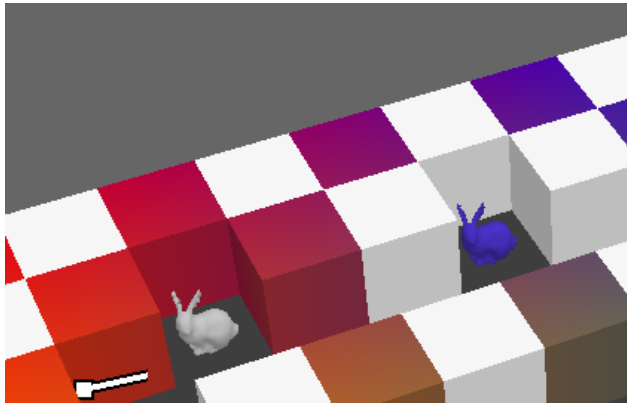
# Introduction

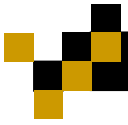


- In typical 3D applications, we need to explore the 3D world
  - Single camera mobile camera
  - Multiple stationary cameras
- Graph Camera
  - Produces a single layer, mostly continuous and non-redundant, 2D image
  - Frustum bending, splitting, and merging
  - Single pass, fast projection, and automatic visibility

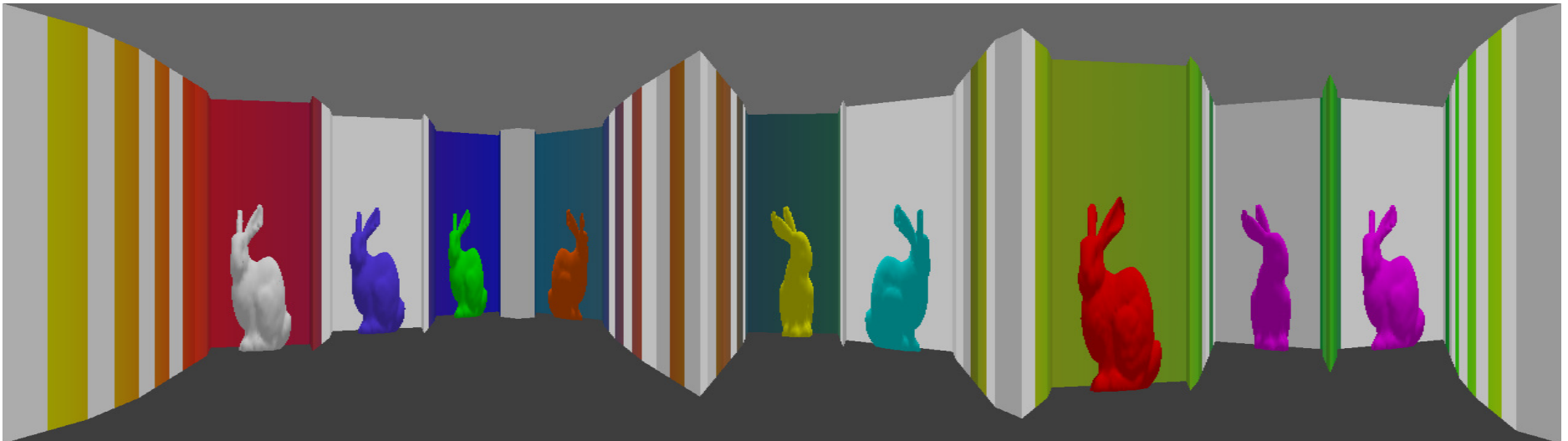
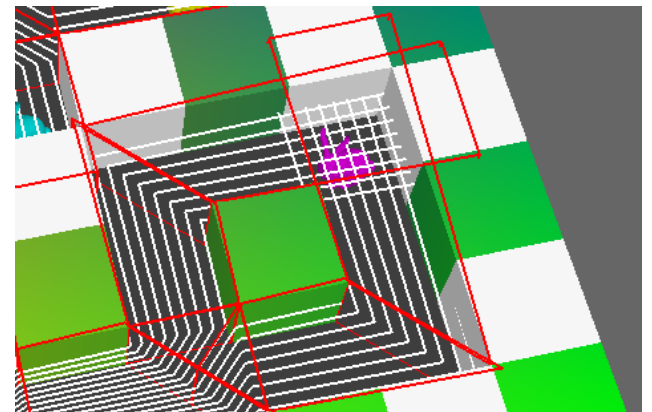
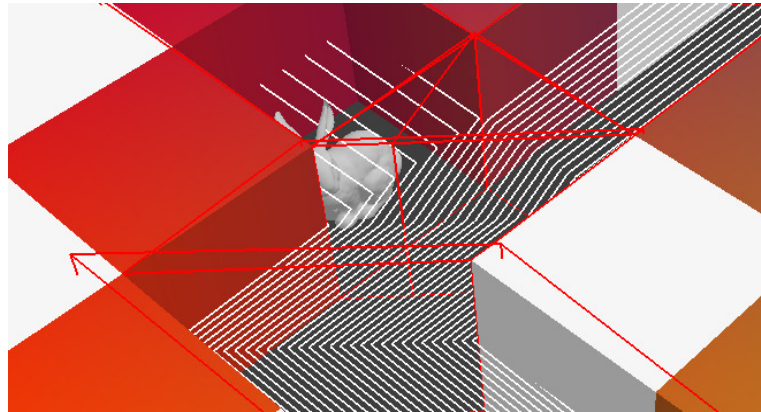
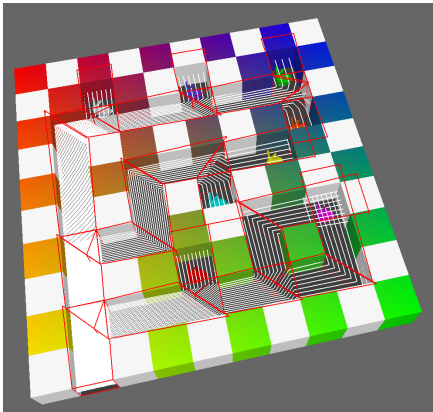


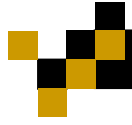
# Traditional Navigation





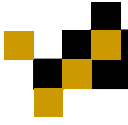
# The Graph Camera



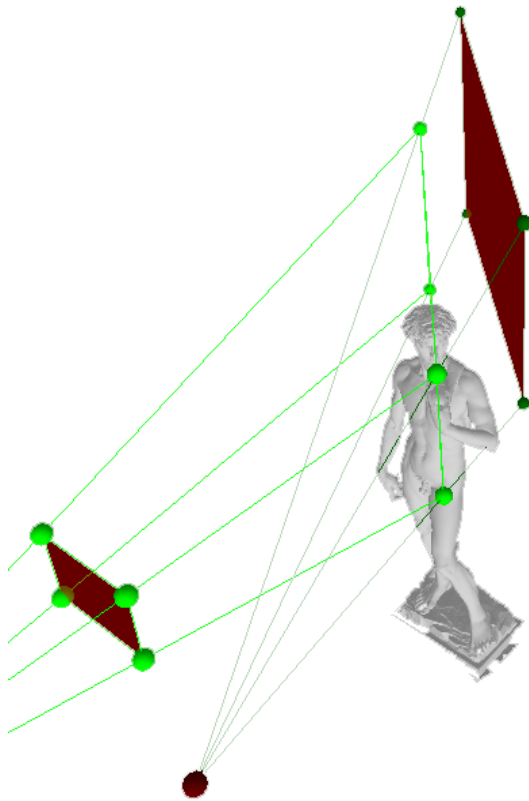


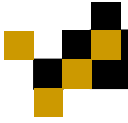
# Video



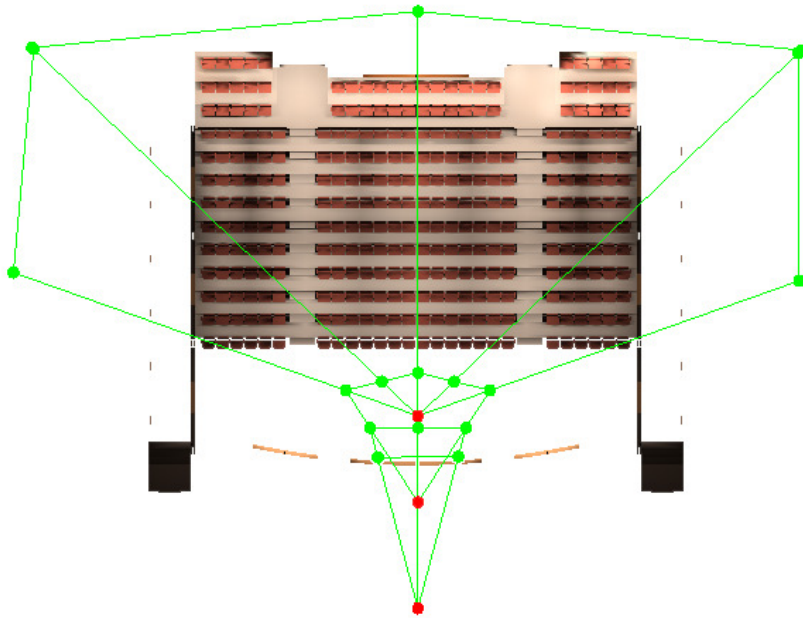


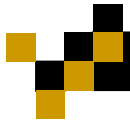
# David





# Auditorium





# By the numbers



	<b>Triangles</b>	<b>Camera Frusta</b>	<b>Frame Rate</b>
<b>Small maze</b>	25K	38	115 fps
	50K		80 fps
	150K		54 fps
<b>Large Maze</b>	250K	108	19 fps
	500K		12 fps
	700K		6 fps
<b>Auditorium</b>	100K	7	40 fps
<b>David</b>	500K	2	30 fps