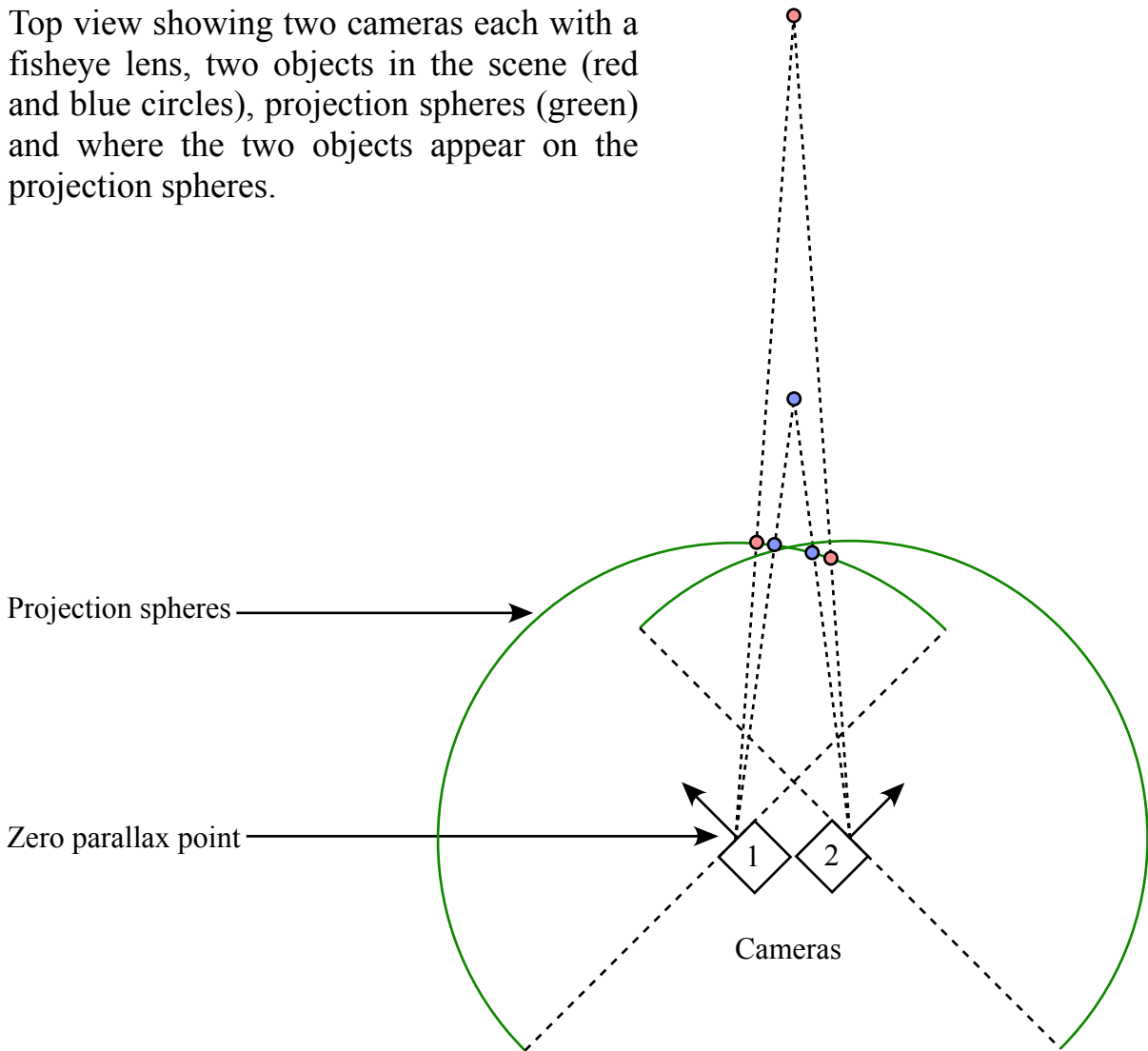


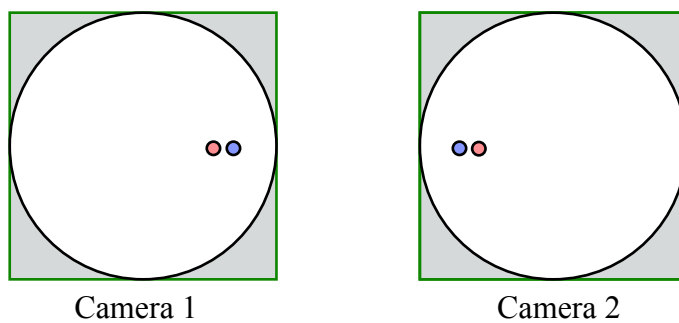
# Diagram for "fundamental parallax issue for blending images from multiple cameras" (fisheye case)

Paul Bourke

Top view showing two cameras each with a fisheye lens, two objects in the scene (red and blue circles), projection spheres (green) and where the two objects appear on the projection spheres.



Fisheye circle from each camera showing where each object appears with respect to the other.



The usual approach for the image alignment and blending, at least conceptually, is to transform the fisheye images into equirectangular space (back project onto a sphere). Irrespective of the exact approach, it is clear that both the blue and red object cannot be aligned. A perfect alignment can be made only if the zero parallax points are collocated, or alternatively for a particular depth but not all depths.