



(54) **PROJECTING IMAGES ON A SPHERICAL VENUE**

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(57) **ABSTRACT**

Systems, methods, and apparatuses disclosed herein can include an exemplary image capture system to capture light that is related to an image within its field of view and/or an exemplary image projection system to transform the image for projection onto a three-dimensional media plane of a three-dimensional venue. The exemplary image capture system can direct rays of light that were captured by the exemplary image capture system onto an image sensor that is associated with the exemplary image capture system. As to be described in further detail below, the exemplary image capture system can focus these rays of light toward a periphery, or edge, of the image sensor. As a result, the three-dimensional venue can display the highest optical image quality for the image toward a bottom, or a springing, of the three-dimensional media plane. Moreover, the exemplary image capture system can be specifically manufactured to heterogeneously, for example, non-uniformly, distribute the rays of light that were captured by the exemplary image capture system onto the image sensor to further enhance the highest optical image quality for the image. As to be described in further detail below, the exemplary image projection system can project the image onto the three-dimensional media plane of the three-dimensional venue. As part of this projecting, the exemplary image projection system can mathematically transform two-dimensional coordinates of pixels of the image onto three-dimensional coordinates of the three-dimensional media plane to project the image onto the three-dimensional media plane. And as part of this projecting, the exemplary image projection system can statistically interpolate color information that is to be projected onto the three-dimensional media plane from the image.

