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Adaptive optics systems attempt to increase the intensity on target by reducing the standard deviation of the wavefront distortion, also referred to as the wavefront error or the rms phase error. The relationship between wavefront error and intensity is now examined. Consider the coordinate system given in Figure 2.2. 32. Chapter 2. Mathematical foundation of thermal blooming __. Z r. PROCEEDINGS VOLUME 11248 â€¢ new. Adaptive Optics and Wavefront Control for Biological Systems VI. Editor(s): Thomas G. Bifano; Sylvain Gigan; Na Ji. For the purchase of this volume in printed format, please visit Proceedings.com.Â In optical imaging, light propagation is affected by the medium inhomogeneities. Adaptive optics has been employed to compensate for sample-induced aberrations but the field-of-view is often limited to a single isoplanatic patch. Here, we propose a non-invasive approach based on the distortion matrix concept. This matrix basically connects any focusing point with the distorted part of its wave-front in reflection.