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INTERFEROMETER HAVING A MICROMIRROR

ABSTRACT OF THE DISCLOSURE

An interferometer includes a beamsplitter for splitting a source beam into a test beam and a reference beam, an imaging device for detecting an interference pattern, a mirror disposed in a path of the test beam for reflection of the test beam toward the imaging device, a micromirror disposed in a path of the reference beam for reflection of a portion of the reference beam toward the imaging device, and a focusing mechanism disposed for focusing the reference beam on the micromirror. The micromirror has a lateral dimension not exceeding the approximate lateral dimension of a central lobe of the reference beam focused thereon by the focusing mechanism. A spatial filter for reducing effects of aberration in a beam includes a reflector disposed upon a transparent base wherein the reflector has a lateral dimension not exceeding the approximate lateral dimension of a central lobe of the spatial intensity distribution of the beam focused upon the reflector. A method of filtering a beam in a wavefront measurement system is also provided. This method includes focusing the beam, reflecting a particular first portion of the focused beam, and transmitting a second portion of the beam.

FIGURE 1