

Phase errors for adaptive optics systems with one and two correctors under heterogeneous atmosphere conditions.

Annotation.

Adaptive optics systems with one and two correctors were analyzed. Anisoplanatic effect for the system with one corrector was analyzed for several atmospheric turbulence models. Residual phase error depending on corrector position was calculated. A method for approximate calculation of the residual error was suggested.

Analysis of adaptive optics system with two correctors was carried out using phase screen method. Considered correction algorithm is based on two beacons and allows improving image quality of objects that are disposed at small angles of sight. Correction algorithm based on only one beacon wavefront information is also suggested.