

TITLE OF INVENTION: METHOD AND SYSTEM FOR ONLINE TRAINING OF INTELLIGENT OPTICAL COMPUTING

ABSTRACT

A method for online training of intelligent optical computing, including: generating coherent light of a preset wavelength using a solid state laser, and expanding coherent light wavefront using a beam expander, and splitting the coherent light wavefront into a first and a second path light beam using a beam splitter; inputting the first path light beam into a first spatial light modulator operating in an amplitude modulation mode for data/error complex field loading and taking the second path light beam as an interfering light beam; relaying the amplitude-modulated light field to a second spatial light modulator through a 4F system for phase modulation, and obtaining an output light beam by passing the second path light beam through a half-wave plate and linear polarizer after polarization adjustment using the half-wave plate; and determining a measurement result by measuring the output light beam using a detecting symmetric propagation system.

[FIG. 1]