Contribution ID: 97 Type: Oral

SIMULATION OF WAVEFRONT FOCUSING THROUGH A SCATTERING MEDIUM

We demonstrated the possibility of the optical field focusing simulation into and behind the scattering medium using the wavefront shaping technique. The calculation of scattered fields was made with MSTM software which provides the exact numerical solution of the Maxwell equations for the system of spherical dielectric particles. Developed wavefront shaping algorithm allows investigating focusing in different planes while the focusing itself is made once in one of them. The properties of the focused spot were studied in four cases: focusing inside the target, just behind the target and at two positions far behind the target.

Primary authors: Mr DANKO, Oleksandr (Taras Shevchenko National University of Kyiv); Dr DANKO, Volodymyr (Taras Shevchenko National University of Kyiv); Dr KOVALENKO, Andrey (Taras Shevchenko National University of Kyiv); Dr KURASHOV, Vitalij (Taras Shevchenko National University of Kyiv)

Presenter: Mr DANKO, Oleksandr (Taras Shevchenko National University of Kyiv)

Track Classification: Laser Physics and Optoelectronics