

Example 2: Linear plasma wakefield with user-defined driver spot size evolution

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The laser spot size is defined by providing a 3D map of $a_{0\perp}^2(x, y, z)$ in File_A0(), for example to mimic laser guiding by a transverse plasma density channel. A MATLAB script is included in the example that creates a 3D map, assuming a laser with focus position at $z = 10$ mm that is guided between $z = 10$ mm and $z = 90$ mm in the 100 mm long plasma target.