# Guiding of Channeling Beams via the Pathfinder Pulse

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The channeling of a laser pulse through an inhomogeneous plasma is of fundamental interest to a range of fields within plasma physics. In order to effectively utilize such a beam, the propagation path must be controlled. However, phenomena such as the filamentation and hosing instabilities complicate this process and cause the pulse to redirect. Here, the results of a series of two dimensional particle-in-cell simulations are presented which focus on minimizing the effects of the hosing instability. As a channeling beam enters a plasma, the head of the pulse is separated from the bulk due to the self-modulation instability and travels forward through plasma at the group velocity in a manner similar to plasma wakefields. The resulting wakefield density modulations continue forward unaffected by hosing, raising the possibility for use as a guiding mechanism for trailing channeling pulses.