Study of super-Alfvénic to sub- Alfvénic transition of a laser-plasma flow in the $LAPD^*$

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We present laboratory experiments on a laser-produced plasma flow as it transitions from a super-Alfvénic ($M_A>3$) to sub- Alfvénic velocity in a large ambient magnetized plasma. The magnetohydrodynamic response of the ambient plasma is measured with magnetic pickup coils and Langmuir probes.

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^{*}Work supported by the DOE/NSF partnership in basic plasma science & the Basic Plasma Science Facility.