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Laser-Induced Forward Transfer of Viscoplastic Fluids MARTIN H. KLEIN SCHAARSBERG, MAZIYAR JALAAL, CLAAS WILLEM VISSER, DETLEF LOHSE, Univ of Twente — Laser-Induced Forward Transfer (LIFT) is a method of additive manufacturing on small scales with a wide variety of applications in the fabrication of flexible electronics, optics, and living tissues. In LIFT, a single laser pulse is focused onto a thin film of the target material, which ultimately leads to the ejection of a droplet. We aim to develop better understanding of the effect of the rheological properties of non-Newtonian fluids and pastes on the LIFT ejection mechanism. We investigate the violent fragmentation and jetting of viscoplastic fluids with high-speed imaging.

Martin H. Klein Schaarsberg
Univ of Twente

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