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**Droplet production due to a filming jet in crossflow** TIMOTHY SHEDD, University of Wisconsin-Madison, MAY CORN, MARCO ARIENTI, MARIOS SOTERIOU, United Technologies Research Center — This work presents the results of a study of a liquid jet atomized by a gas cross-flow in the vicinity of a plane wall normal to the liquid jet axis. Droplets and ligaments with sufficient momentum will impinge on the wall, forming a thin liquid film. A highly time-resolved fluorescent liquid film thickness measurement technique is used together with high speed video to correlate the temporal behavior of jet and droplet impingement with the film thickness. Results of time correlated PDPA and film thickness measurements are also presented, showing the relationship between droplet production and film thickness versus droplet production from the jet alone.

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