

Abstract Submitted  
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**Drop impact on flowing liquid films: asymmetric splashing**<sup>1</sup> RENAD ISMAIL, ZHIZHAO CHE, Imperial College London, LAUREN ROTKOVITZ, MIT, IDRIS ADEBAYO, OMAR MATAR, Imperial College London — The splashing of droplets on flowing liquid films is studied experimentally using high-speed photography. The flowing liquid films are generated on an inclined substrate. The flow rate of the liquid film, the inclination angle, and the droplet speed are controlled and their effects on the splashing process studied. Due to the flow in the liquid film and the oblique impact direction, the splashing process is asymmetric. The propagation of the asymmetric crown and the generation of secondary droplets on the rim of the crown are analysed through image processing. The results show that the flow in the liquid films significantly affects the propagation of the liquid crown and the generation of secondary droplets.

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Omar Matar  
Imperial College London

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