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Intercomponent dispersive shock in counterflowing BECs<sup>1</sup> JIA-JIA CHANG, CHRIS HAMNER, PETER ENGELS, Washington State University — Superfluids can display an intriguing variety of hydrodynamic effects. In our experiment, we study the counterflow of two distinguishable superfluids in a narrow channel. The superfluids are formed by two different hyperfine states of a <sup>87</sup>Rb Bose-Einstein condensate. We present experimental results in which, for the first time, the formation of inter-component dispersive shock waves is observed as a consequence of the counterflow. We show that these shock waves consist of trains of dark-bright solitons, and we investigate their dynamics.

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