

Abstract Submitted
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Microfluidics on a wire TRISTAN GILET, DENIS TERWAGNE,
NICOLAS VANDEWALLE, GRASP, ULg — In this talk, we discuss the behavior
of droplets sliding on fibers. An on/off transition is observed when a droplet comes
around an intersection between several fibers: large droplets cross the junction while
small droplets remain blocked. We show that simple fiber networks may perform
advantageously most operations of digital microfluidics, such as multiplexing: inter-
sections could be the basic component of new fiber-based microfluidic devices.

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