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: intersections could be the basic component of new fiber-based microfluidic devices.