

Sofia Allende sofia.allende@mines-paristech.fr

Phd Candidate, CEMEF, MINES ParisTech, Sophia Antipolis, France

Dynamics and fragmentation of small inextensible fibers in turbulence



with Jérémie Bec and Christophe Henry

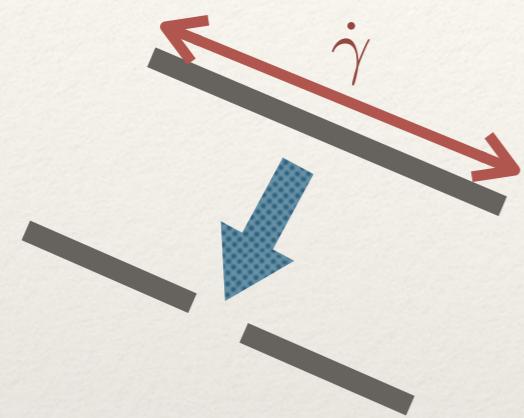


Violent motions of the fibers can trigger fragmentation

Two mechanisms

TENSILE FAILURE

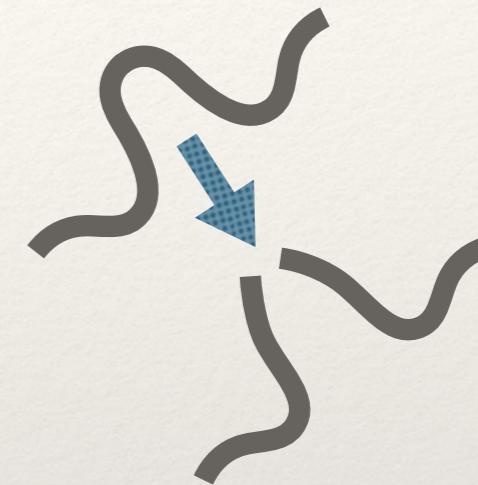
Too strong tension



Strong stretching by the flow

FLEXURAL FAILURE

Too strong curvature



Strong compression by the flow

Non-Gaussian fluctuations

