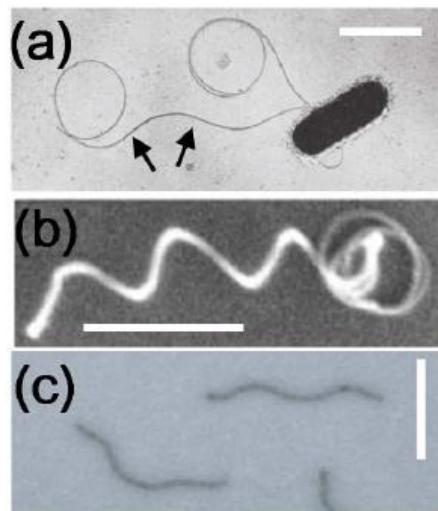


# (Confotronics of Biofilaments) The Helical Superstructure of Intermediate Filaments



L. Bouzara, M. M. Müller, R. Messina, B. Nöding, S. Köster, H. Mohrbach, I. M. Kulic

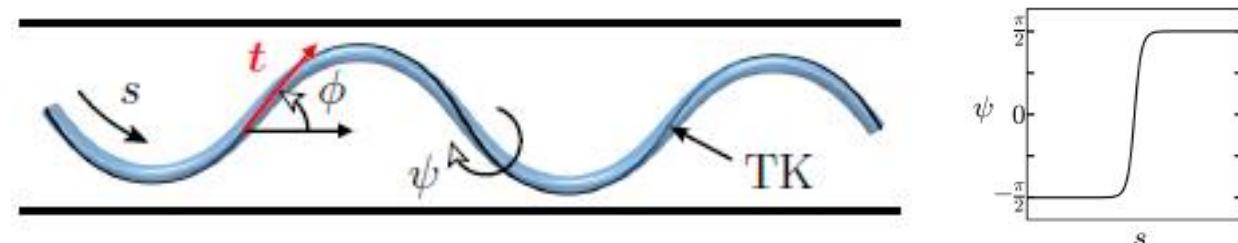


## Helices at Interfaces

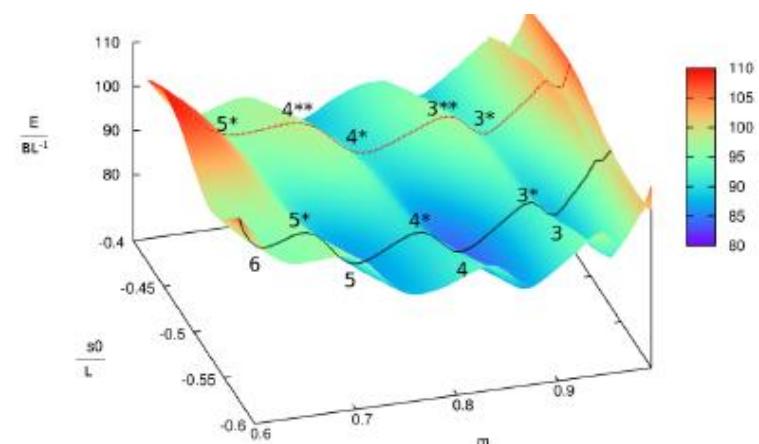
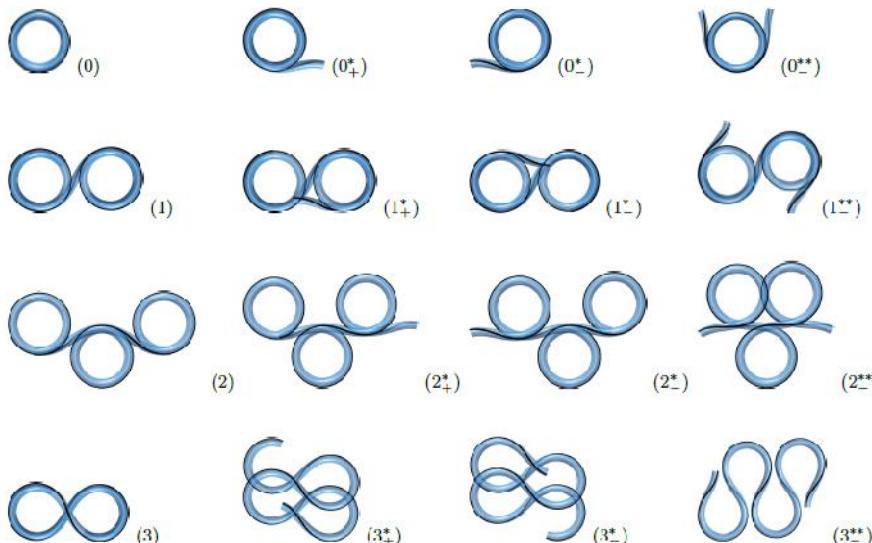
Nam, Lee, Mohrbach, Johner, Kulic, Europhys. Lett. (2012).

## Squeezed helical elastica

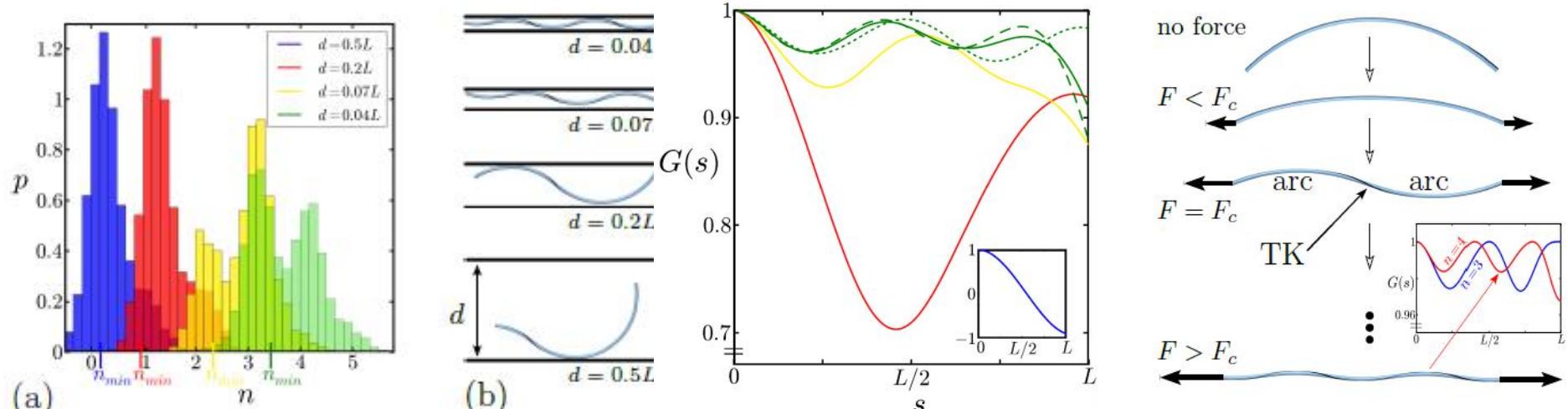
Bouzar, Müller, Gosselin, Kulic, Mohrbach, Eur. Phys. J. E (2016)



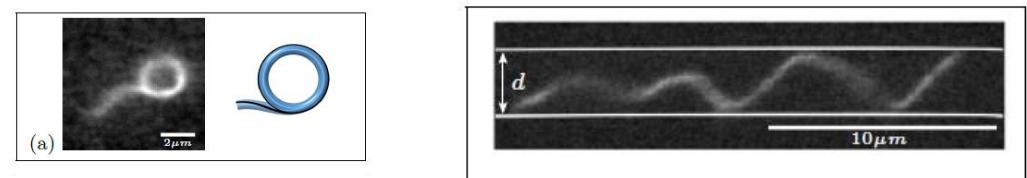
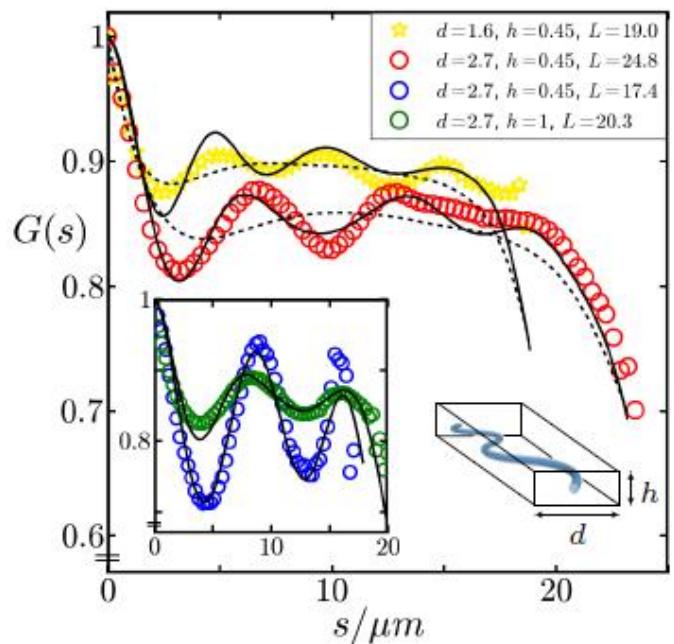
$$\{ \begin{aligned} \zeta' &= \tilde{S}_1 \sin \mathbb{E} \\ \mathbb{E}(s) &= am \left( \frac{s - s_0}{\sqrt{m}} \right) \end{aligned}$$



# Squeelix with lateral confinement: twist-kink injection mechanism



## IF in a microfluidic channel



Origin of helicity ? auto coiling ?

