1145-49-697 **Lorenzo Freddi**, **Peter Hornung**, **Maria Giovanna Mora*** (mariagiovanna.mora@unipv.it) and **Roberto Paroni**. *A corrected Sadowsky functional for inextensible elastic ribbons.*

In 1930 Sadowsky gave a constructive proof for the existence of a developable Möbius band and posed the problem of determining the equilibrium configuration of a Möbius strip made of an unstretchable material. He tackled this latter problem variationally and he deduced the bending energy for a strip whose width is much smaller than the length. This energy, now known as the Sadowsky energy, depends on the curvature and torsion of the centerline of the band and it is singular at points with zero curvature. In this talk we will re-examine the derivation of the Sadowsky energy using Γ-convergence. The energy deduced in this way generalizes and corrects the classical Sadowsky functional. (Received September 13, 2018)