

We are giving a brief overview of some results at the bending theory. Variation of some geometrical magnitudes is considered—curvature, torsion, area, volume, Willmore energy (Joint works with M. Ciric and M. Cvetkovic). We also consider graphical presentation of surface bending (Joint works with S. Rancic and M. Zlatanovic).

At the second part we consider infinitesimal deformations $f: x^i \rightarrow x^i + \varepsilon z^i(x^j)$ of a space L_N with non-symmetric affine connection L^i_{jk} . Based on the non-symmetry of the connection, we use four kinds of covariant derivative to express the Lie derivative and the deformations. Rigidity of geometric objects (connection, tensors, curvature) is defined by virtue of Lie derivative (Joint works with S. Mincic and M. Stankovic).