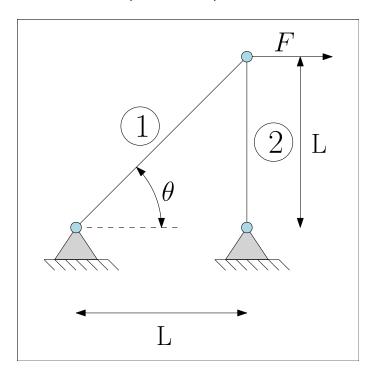
## Analysis of planar truss structure

We want to compute the displacement at nodes of the following truss structure



The numerical values for this example are the following:

- L = 1 [m];
- Cross section for beam 1:  $A_1 = \sqrt{2}A$  where  $A = 4 \cdot 10^{-4} \; [\mathrm{m}^2]$ ;
- Cross section for beam 2:  $A_2=A$ ;
- Young Modulus (for both beams)  $E=210~\mathrm{[GPa]};$
- From the geometry  $\theta=\pi/4$ ;
- Applied force  $F=50~\mathrm{kN}.$