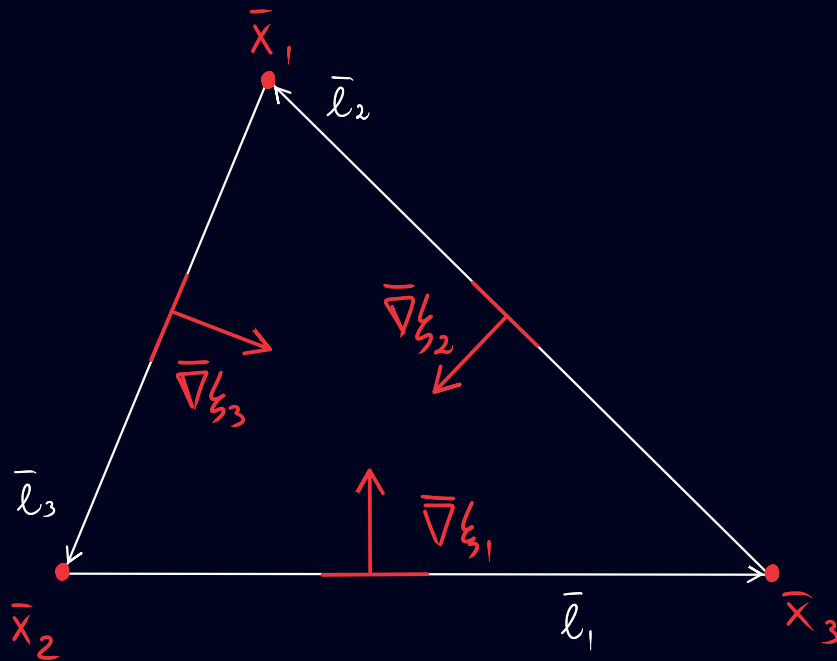


Scalar finite elements



Numbering of the nodes

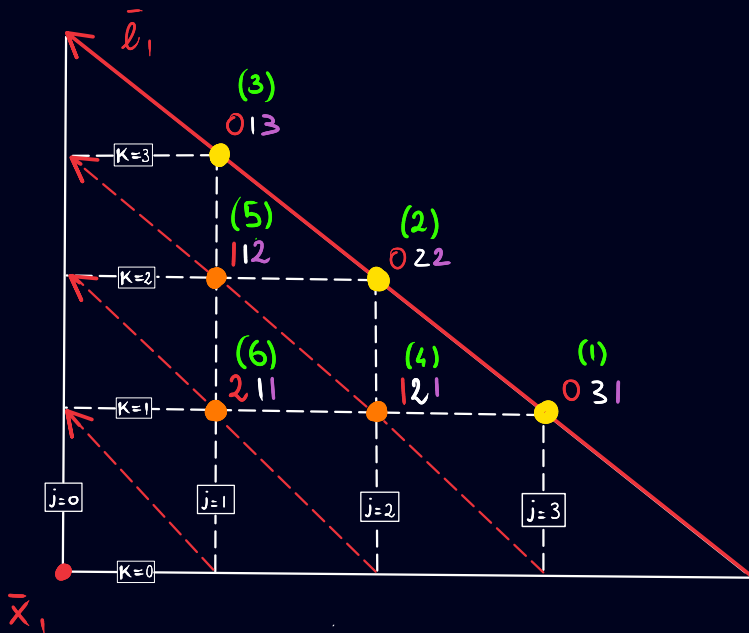
The first node is chosen arbitrarily

The remaining nodes are numbered in counter-clockwise order (RHR with outward normal vector).

Numbering of the edges

The j -th edge is opposite to the j -th node.

Vector finite elements



Numbering of the DOFS

Each DOF is identified by three indices (i, j, k) only two of which are independent.

Index i : iso-lines associated to the 1st edge ($i=0$ means that the DOF sits upon the 1st edge).

Index j : iso-lines associated to the 2nd edge ($j=0$ means that the DOF sits upon the 2nd edge).

Index k : iso-lines associated to the 3rd edge ($k=0$ means that the DOF sits upon the 3rd edge).

Order of the DOFS

The local order of the DOFs establishes the cardinality with which each is counted.

For the j -th edge the DOFs are sorted by increasing values of the j -th index.

If two DOFs have the same value for j then they are sorted by increasing values of the $(j-1)$ -th index.