



COST Action IE0601



Structural performance assessment and repair of carpentry joints

Pedro Palma ^a , Jorge Branco ^b

Helena Garcia ^{a*} , Helena Cruz ^a

(a) Timber Structures Division
National Laboratory for Civil Engineering (LNEC)
PORTUGAL

(b) Department of Civil Engineering
University of Minho (UMinho)
PORTUGAL

(*) MSc student

Background



> Assessment of ancient timber structures

- Necessary to know
 - mechanical properties of elements and joints
 - Effects of repair/strengthening techniques
- Building codes focus mainly modern industrialized joints



> Traditional timber carpentry joints

- Necessary to establish
 - behaviour models
 - influence of several aspects (geometry, metal parts, moisture content, biological degradation, ...)
 - guidelines to future interventions in ancient timber structures