



APPLICATIONS

CARBON 14 DATING: REPORT OF THE HOLY FACE OF LUCCA PRESENTED

On 19 June, the results of the diagnostic tests on the Holy Face, an ancient and imposing wooden crucifix (247 cm) of great historical-artistic and religious importance, were presented to the press. The measurements, carried out by a team from the INFN Laboratory for Cultural Heritage and Environment (LABEC)

in Florence, using the carbon 14 method, proved decisive in giving an answer to the controversial problem of when the work was carried out, which most experts believe dates back to the second half of the 12th century. The results indicate, however, that the crucifix can be dated between the last decades of the 8th and the beginning of the 9th century: it would therefore be the oldest wooden sculpture in the Western world. The analyses were conducted within the scope of INFN CHNet (Cultural Heritage Network) thanks to the LABEC particle accelerator using the AMS (Accelerator Mass Spectrometry) technique, which dates organic materials (such as wood, tissue or bone) through the analysis of a carbon isotope: carbon 14, also called radiocarbon. ■