



EINLADUNG  
zum  
VERA - SEMINAR  
von

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**Old olive trees: Can we know how old a tree is?  
Can we know when a tree died?  
A high-resolution radiocarbon research on the  
growth patterns of olive trees**

The olive tree (*Olea europaea*) is known to be in the 'blacklist' of tree-rings experts, and hence, determining its age by ring counting is highly debatable.

Here we present the use of a novel integration of  $\delta^{13}\text{C}$  measurements and radiocarbon dating, to identify, for the first time, a proven annual signal in modern olive wood. Comparing these results with CT scans of a parallel radial section indicated that CT might not be sufficient for assessing the total number of rings in fresh and charred olive wood. Furthermore, we demonstrate the complexity of the olive stem, expressed in different growth by sectors along the circumference, and the difficulties of dating a tree by 'coring and extrapolating', using a test case of dating a full section of the trunk.

Our results have implications for former and future chronological questions, being answered using olive wood samples, and open possibilities for future dendrochronological and climatological research using olive wood.

**Donnerstag, 06. Dezember 2018, 16:30 Uhr**

**1090 Wien, Währinger Str. 17, "Kavalierstrakt",  
1. Stock, Victor-Franz-Hess Hörsaal**