

CV Damiano Zanotelli

Damiano Zanotelli is assistant professor (tenure track RTD/A) at the Faculty of Science and Technology at the Free University of Bozen-Bolzano (UNIBZ) since February 2018. He studied Agricultural Sciences at the University of Bologna, graduating in 2007 cum laude. He obtained a II level international master “Land and Water Conservation” in collaboration between the Universities of Bologna and Washington State (USA). He received a joint Ph.D in Horticultural Sciences (Doctor Europaeus) from the Universities of Bologna and Bolzano in 2012. He worked as researcher for the Free University of Bolzano for six years, collaborating at several research projects mostly related to the assessment of carbon and water fluxes in the soil-plant-atmosphere system and the nitrogen nutrition of woody plants. He was awarded as best Jung researcher (“Premio Giovane Ricercatore”) for the category “Fruticulture” by the Italian Society of Horticultural Sciences (SOI) in September 2016. At the present (October 2019), according to Scopus, he is author of 21 publications in international referred Journals, with an *H*-index of 7.

The main projects he was involved as research assistant were:

- BANLU – Biological Assimilation of Nitrogen after leaf uptake (
- IQUIS
- WOOD-UP
- WEST - Water Use Efficiency across the South Tyrol ecosystems (2016-2018). Project financed by the Free University of Bolzano-Bozen
- MONALISA - Monitoring key environmental parameters in the Alpine Environment involving science, technology and application (2016). Project financed by the Autonomous Province of Bolzano-Bozen
- LUNT - Leaf uptake and partitioning of nitrogen deriving from atmospheric deposition in agricultural and forest trees (2015). Project financed by the Free University of Bolzano-Bozen.
- The influence of vegetation on carbon fluxes and soil carbon accumulation after glacier retreat (2014). Project financed by the Free University of Bolzano-Bozen.
- Analysis of carbon and energy balances along the entire apple production chain (2013). Project financed by the private cooperative “Assomela”
- Potential of atmospheric CO₂ fixation by the apple orchard in Alto-Adige-Südtirol (2012). Project financed by the Autonomous Province of Bolzano-Bozen
- RAVAGRU –Advanced Research and Experimentation on Citrus Agriculture (2008). Project finances the Italian Ministry of Instruction and University (MIUR)

Publications in referred journals and conference proceedings

1. **Zanotelli D.**, Montagnani L., Andreotti C., Tagliavini M., 2019. *Evapotranspiration and crop coefficient patterns of an apple orchard in a sub-humid environment*. Agricultural Water Management 226 (2019) 105756, <https://doi.org/10.1016/j.agwat.2019.105756>.
2. Montagnani L., Badraghi A., Speak A.F., Wellstein C., Borruso L, Zerbe S., and **Zanotelli D.**, 2019. *Evidence for a non-linear carbon accumulation pattern along an Alpine glacier retreat chronosequence in Northern Italy*. Peerj, DOI 10.7717/peerj.7703.
3. Reyes F., Pallas B., Pradal C., Vaggi F., **Zanotelli D.**, Tagliavini M., Gianelle D. and Costes E., 2019. *MuSCA: a multi-scale source-sink carbon allocation model to explore carbon allocation in plants. An application on static apple-tree*. Annals of Botany, in press. DOI: 10.1093/aob/mcz122
4. Boschiero M., **Zanotelli D.***, Ciarapica F., Fadanelli L., Tagliavini M., 2019. Greenhouse gas emissions and energy consumption during the post-harvest life of apples, as affected by storage type, packaging and transport. Journal of Cleaner Production 220: 45-56. DOI: 10.1016/j.jclepro.2019.01.300 *corresponding author.
5. Lucchetta V., Volta B., Tononi M., **Zanotelli D.** and Andreotti C., 2019. *Effects of pre-harvest techniques in the control of berry ripening in grapevine cv. Sauvignon blanc*. BIO Web of Conferences 13: 04016. CO.NA.VI 2018. DOI: 10.1051/bioconf/20191304016
6. Wenter A., **Zanotelli D.**, Montagnani M., Tagliavini M., Andreotti C., 2018. *Effect of different timings and intensities of water stress on yield and berry composition of grapevine (cv. Sauvignon blanc) in a mountain environment*. Scientia Horticulturae 1217: 263-269. DOI: 10.1016/j.scienta.2018.03.037.
7. Montagnani L., Zanotelli D., Tagliavini M. and Tomelleri E. (2018). Time scale effects on the environmental control of carbon and water fluxes of an apple orchard. Ecology and Evolution. DOI: 10.1002/ece3.3633
8. Kaba S.J., Zerbe S., **Zanotelli D.**, Abunyewa A. A., Tagliavini M., 2018. *Uptake of nitrogen by cocoa (Theobroma cocoa L) trees derived from soil decomposition of gliricidia (Gliricidia sepium Jacq.) shoots*. VIII ISHS Symposium on Mineral Nutrition of Horticultural Crops, June 2017, Bolzano-Bozen (Italy). Acta Horticulturae 1217:263-269. DOI: 10.17660/ActaHortic.2018.1217.33
9. Rocuzzo G., Scandellari F., Allegra M., Torrisi B., Stagno F., Mimmo T., **Zanotelli D.**, Gioacchini P., Millard P., Tagliavini M. (2017). *Seasonal dynamics of root uptake and spring remobilisation of nitrogen in field grown orange trees*. Scientia Horticulturae 226: 223-230. <http://dx.doi.org/10.1016/j.scienta.2017.08.010>
10. Reyes F., Gianelle D., Pradal C., Pallas B., Costes E., **Zanotelli D.**, Tagliavini M., 2017. *A Multi-scale model to explore carbon allocation in Plants*. Proc. X Int. Symp. on Modelling of Fruit Research and Orchard Management. Acta Hortic. 1160: 285-292. DOI 10.17660/ActaHortic.2017.1160.41
11. Wenter A., **Zanotelli D.**, Montagnani L., Tagliavini M., Andreotti C., 2017. *Effects of an early-summer drought stress on leaf photosynthesis, growth and yields of grapevine in mountain conditions*. Proc. VII Int. Symp. on Irrigation of Horticultural Crops. Acta Hortic. 1150: 25-31. DOI: 10.17660/ActaHortic.2017.1150.63
12. Varolo E., **Zanotelli D.**, Montagnani L., Tagliavini M., Zerbe S., (2016). *Colonization of a deglaciated moraine: contrasting patterns of carbon uptake and release from C3 and CAM plants*. PlosONE DOI:10.1371/journal.pone.0168741
13. Scandellari F., Caruso G., Liguori G., Meggio F., Assunta M. P., **Zanotelli D.**, Celano G., Gucci R., Inglese P., Pitacco A. and Tagliavini M. (2016). *A survey of carbon sequestration potential of orchards and vineyards in Italy*. European Journal Horticultural Science 81(2), 106–114. <http://dx.doi.org/10.17660/eJHS.2016/81.2.4>

14. **Zanotelli D.**, Scandellari F., Melo W.B., Cassol P., Tagliavini M., 2016. *Effect of fruit load on the photosynthetic capacity and on the ecological light use efficiency of an apple orchard*. XXIX IHC – Proc. Int. Symp. on the Physiology of Perennial Fruit Crops and Production Systems and Mechanisation, Precision Horticulture and Robotics. Acta Hortic. 1130: 25-32, DOI: 10.17660/ActaHortic.2016.1130.4.
15. Tomè E., Ventura M., Folegot S., **Zanotelli D.**, Montagnani L., Mimmo T., Tonon G., Tagliavini M., Scandellari F., 2016. *Mycorrhizal contribution to soil respiration in an apple orchard*. Applied Soil Ecology, 101: 165-173. <http://dx.doi.org/10.1016/j.apsoil.2016.01.016>
16. Martinez C., Alberti G., Cotrufo M.F., Magnani F., **Zanotelli D.**, Camin F., Gianelle D., Cescatti A., Rodeghiero M., (2016). *Belowground carbon allocation pattern as determined by the in-growth soil core ¹³C technique across different ecosystem types*. Geoderma, 263: 140-150. <http://dx.doi.org/10.1016/j.geoderma.2015.08.043>
17. Scandellari F., **Zanotelli D.**, Ceccon C., Bolognesi M., Montagnani L., Cassol P., Melo G.W., Tagliavini M., (2015). *Enhancing prediction of soil respiration in an apple orchard by integrating photosynthetic activity into a temperature-related model*. European Journal of Soil Biology, 70: 77-87. <http://dx.doi.org/10.1016/j.ejsobi.2015.07.006>
18. **Zanotelli, D.**, Montagnani L., Manca, G., Scandellari F., Tagliavini, M., (2015). *Net ecosystem carbon balance of an apple orchard*. European Journal of Agronomy, 63:97-104. <http://dx.doi.org/10.1016/j.eja.2014.12.002>
19. **Zanotelli D.**, Montagnani L., Manca G., Tagliavini M. (2013). *Net primary productivity, allocation pattern and carbon use efficiency in an apple orchard assessed by integrating eddy-covariance, biometric and continuous soil chamber measurements*. Biogeosciences, 10: 3089-3108, 2013. doi: 10.5194/bg-10-3089-2013.
20. Rocuzzo G., **Zanotelli D.**, Allegra M., Giuffrida A., Torrisi B.F., Leonardi A., Quinones A., Intrigliolo F., Tagliavini M. (2012). *Assessing nutrient uptake by field grown orange trees*. European Journal of Agronomy, 41:73-80. <http://dx.doi.org/10.1016/j.eja.2012.03.011>
21. **Zanotelli D.**, Guerra W., Rechenmacher M., Cassar A., Stainer R., Tagliavini M., 2013. *Leaf Mg sprays reduce leaf chlorosis and necrosis symptoms in apple trees 'Nicoter'*. Proc. VII IS. on Mineral Nutrition of Fruit Crops, May 2012, Chanthaburi, Thailand. Acta Hortic. 984: 339-346