Prof. Dr. Eckart Priesack

Technische Universität München,

School of Life Science,

Alte Akademie 12 85354,

Freising-Weihenstephan.

Scientific & Professional Career

1974 – 1982	Diploma Mathematics, University of Munich
1982 – 1987	Ph.D. in Mathematics, University of Munich (Function Theory of several complex variables)
1986 -1988	Post Doc at the Institute of Thermodynamics, Technical University Munich (TU Munich)
1988-2015	Group leader and scientist at the Institute of Soil Ecology, Helmholtz Center Munich
2006	Habilitation (Univ. Göttingen)
Since 2012	Lecturer (TU Munich)
Since 2014	Honorary Professor, University of Hohenheim, Professor (apl.), TU Munich
2015-2020	Group leader and senior scientist, Plant-Soil Modelling Research Group at the Institute of Biochemical Plant Pathology, Helmholtz Center Munich

Expertise

- **Development of terrestrial ecosystem models**
- **Modelling of soil-plant systems**
- **Soil hydrology of heterogeneous soils**
- **Modelling of soil C- and N-turnover dynamics**
- **Modelling land surface – atmosphere interaction (i.e. fluxes of energy, water and nitrogen compounds)**

Experience Abroad

1993-1994 Visiting scientist at US Salinity Laboratory, Soil Physics, Riverside, USA

Graduate Advisory Experience

8 Postdocs (Munich)
14 PhD Students (Munich, Göttingen)

Recent Publications

Heinlein, F., Biernath, C., Klein, C., Thieme, C., Priesack, E.: Evaluation of simulated transpiration from maize plants on lysimeters. Vadose Zone Journal 16 (2017) doi:10.2136/vzj2016.05.0042.

Hentschel, R., Hommel, R., Poschenrieder, W., Grote, R., Holst, J., Biernath, C.J., Gessler, A., Priesack, E.: Stomatal conductance and intrinsic water use efficiency in the drought year 2003: A case study of European beech. Trees 30 (2016) 153-174.

Asseng et al.: Rising temperatures reduce global wheat production. Nature Climate Change 5 (2015) 143-147.

Asseng et al.: Uncertainty in simulating wheat yields under climate change. Nature Climate Change 3 (2013) 827-832.

Hentschel, R., Bittner, S., Janott, M., Biernath, C., Holst, J., Ferrio, J.P., Gessler, A., Priesack, E.: Simulation of stand transpiration based on a xylem water flow model for individual trees. Agricultural and Forest Meteorology 182-183 (2013) 31-42.

Wöhling, T., Gayler, S., Priesack, E., Ingwersen, J., Wizemann, H.-D., Högy, P., Cuntz, M., Attinger, S., Wulfmeyer, V., Streck, T.: Multiresponse, multiobjective calibration as a diagnostic tool to compare accuracy and structural limitations of five coupled soil-plant models and CLM3.5. Water Resources Research 49 (2013) 8200-8221.

Bittner, S., Legner, N., Beese, F., Priesack, E.: Individual tree branch-level simulation of light attenuation and water flow of three F. sylvatica L. trees. Journal of Geophysical Research 117 (2012), G1, G01037.

Bittner, S., Janott, M., Ritter, D., Köcher, P., Beese, F., Priesack, E.: Functional-structural water flow model reveals differences between diffuse- and ring-porous tree species. Agricultural and Forest Meteorology (2012), 158-159, 80-89.

Zacharias, S. et al..: A network of terrestrial environmental observatories in Germany. Vadose Zone Journal 10 (2011) 955-973.

Janott, M., Gayler, S., Gessler, A., Javaux, M., Klier, C., Priesack E.: A one-dimensional model of water flow in soil-plant systems based on plant architecture. Plant and Soil 341 (2011), 233-256.