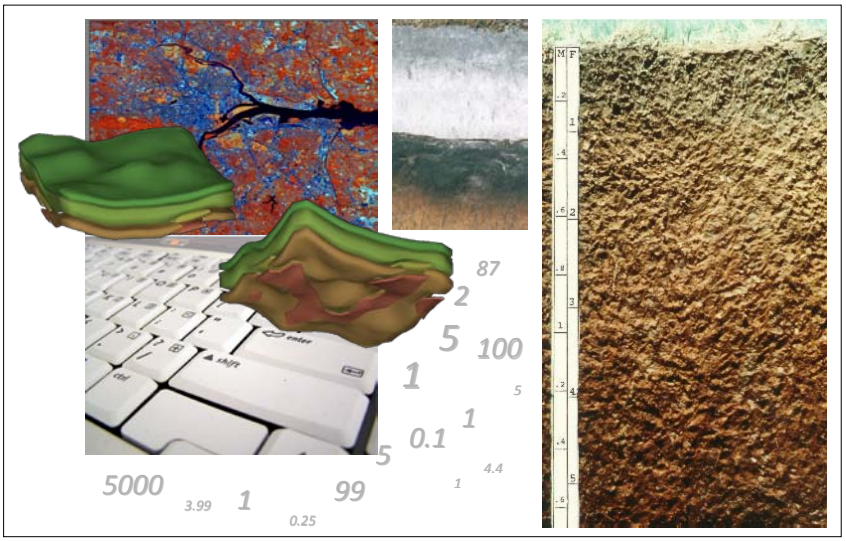
Soil and Water Science (SWS) – University of Florida – Award "Quantitative Environmental Soil Science / Pedometrics"

Award is denoted: Award Certificate and cash award of $1,000



This award is given annually to an outstanding candidate (student, Post-Doc, or staff member in the Soil and Water Science (SWS) Department, UF; or student enrolled in graduate program in the School of Natural Resources and Environment w/ Major Advisor or Co-Advisor in SWS) in recognition of cutting-edge research in Quantitative Environmental Soil Science / Pedometrics. We invite applications on: (i) the development and application of new quantitative methods or simulation models, (ii) fusing of disparate environmental data to derive new conclusions (synthesis analysis), (iii) up/downscaling of environmental soil properties and ecosystem processes, or (iv) advanced modeling across larger soil-landscapes.

The award is open to students, Post-Docs, and staff members in the Soil and Water Science Department, University of Florida. Self-nominations and nominations by peers are invited.
The Award in "Quantitative Environmental Soil Science / Pedometrics" is awarded based upon submission of:

- Contact address of candidate (incl. email and phone)
- Curriculum vitae of candidate
- Essay of the candidate outlining accomplishments in quantitative environmental-soil science / pedometrics (compare evaluation criteria below) – limited to max. of 3 pages
- Two letters of nomination/recommendation from Peers (e.g. Major Advisor, Supervisor)
- Optional: Peer-reviewed publication, thesis or dissertation demonstrating results on "quantitative environmental soil science/pedometrics"

<u>Each candidate will be judged on the following criteria</u>:

- *Innovation* to apply quantitative methods (statistical, geostatistical, geospatial, temporal, or spatio-temporal mechanistic modeling techniques) to soil/environmental science
- *Novelty* of research to investigate a soil/environmental problem of high priority
- *Application* of digital methods including GIS, remote sensing, soil sensors; and/or development of new quantitative methods / approaches

- *Complexity and difficulty level* of applied methods
- *Clarity* of documentation of research
- *Quantification of* uncertainty and quality to assess/predict soil/environmental properties and/or ecosystem processes
- *Interpretation* of results / deduction of conclusions

Sponsor: GIS Core Lab, SWS Department, UF; Sabine Grunwald

Nomination submission: By October 1 of each year

Award funds: $500 cash award + $500 for use to attend scientific conference/workshop; professional development, scientific books, software or similar.

Background Information

Pedometrics (term coined by A.B. McBratney) is a neologism, which stems from the Greek words *pedos* [soil] and *metron* [measurement]. It is formed and used analogously to other applied statistical fields such as biometrics, psychometrics, econometrics etc. Pedometrics is defined as: "The application of mathematical and (geo) statistical methods for the quantitative modeling of soils, with the purpose of analyzing its distribution, properties, and behavior (processes)".
Pedometrics is a Commission of the International Union of Soil Sciences.