# Transcending Conventional GPR Data. (S05-tischler130506-Oral)

**Authors:**

- M.A.Tischler - *University of Florida*
- S.Grunwald - *University of Florida*
- M.E.Collins - *University of Florida*

## Abstract:

Ground-penetrating radar (GPR) has proven to be an efficient method of attaining information about soil morphology. GPR is able to provide a quantitative and graphical display of information by propagating electromagnetic waves through the earth, where variable amounts of energy are reflected back and measured. Though the high-resolution, graphical imagery produced by GPR is useful independently, it is often desirable to combine several multidisciplinary datasets to develop an interpretive strategy for a particular site. This demonstration shows alternative methods of GPR data visualization and how GPR data can be combined with extraneous datasets in a Geographic Information Systems (GIS) environment. We developed a methodology to go beyond conventional two-dimensional (2D) soils representations. We used geostatistical techniques to interpolate the GPR data collected along transects to create three-dimensional (3D) models showing the spatial distribution of subsurface features. Such 3D models improve our comprehension and interpretation of soil data.

**Corresponding Author Information:**

Michael Tischler
University of Florida
702-111 SW 16th Ave
Gainesville, FL 32601

phone: 352-378-1569
e-mail: mollic@ufl.edu

## Presentation Information:

Presentation Date: Monday, November 11, 2002
Presentation Time: 3:00 pm

## Keywords:

GPR, Modeling, Visualization, GIS