



### 1. Title

Quantification and Application of Uncertainty in Pedometrics

### 2. Type

Commission Symposium: Comm. 1.5-Pedometrics

### 3. Organizer(s) & Convener

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### 4. Rationale

The development of pedometric techniques (including digital soil mapping techniques) has vastly improved our ability to quantitatively characterize and digitally map soil information and has increased the viability of soil spatial information to be used in environmental modeling and other geospatial analysis. One of key research topics, which has not receive much but start to receive attention, is the provision of and the application of uncertainty information associated with the information products provided from these techniques. This symposium will be one of the first kinds in the soil science community to address the issues associated with the quantification and application of uncertainty in soil information products.

### 5. Objectives

The main objective of this session is to bring together scientists both from the information technology community at large and from the soil science community (including pedometricians) involved in the quantification of uncertainty and application of uncertainty to exchange research findings and to create a synergy on the topic.

### 6. Description

The uncertainty in any information product generally comes from three main sources described as: uncertainty due to the structure of the model producing the information product, uncertainty due to parameters for the model, and the uncertainty due to inputs to the model.

This symposium will address some of these generic issues including but not limited to the quantification, propagation and spatial variation of uncertainty associated with soil information products, as well as application of uncertainty and its impacts on environmental modeling.

