Talk or poster presentation?	**Talk**
Language of the presentation	**English**
Title of the presentation (limited to 150 characters including spaces)	**Quantifying uncertainty in meta-analysis by probability and imprecise probability**
Author's name	**Ivette Raices Cruz**
• affiliation	**Lund University**
• complete contact information	**Centre of Environmental and Climate Research** **Solvegatan 37** **223 62 Lund** **Sweden**
• e-mail address	ivette.raices_cruz@cec.lu.se
Abstract (limited to 150 words)	There are challenges in quantifying uncertainty in evidence synthesis, such as considering multiple source to uncertainty and adopting the measures of quantification to the problem at hand. Bayesian meta-analysis open up to quantify uncertainty by probability. As a result the main effect of an intervention can be summarized by a probability interval, which is different from a confidence interval obtained from a classical meta-analysis. However, a Bayesian analysis may in some situations miss to quantify the impact from uncertainty in the quality of studies or model assumptions. If so, an alternative is to apply a Generalized Bayesian analysis for meta-analysis. This is a kind of Bayesian learning using sets of priors or likelihoods which quantify uncertainty by probability and imprecision on probability. A Generalized Bayesian analysis can be seen as a merge between Bayesian analysis and sensitivity analysis resulting in sets of posteriors, which gives lower, and upper bounds on posterior beliefs, bounds on probability intervals or expected effects. Both Bayesian and Generalized Bayesian analyses are useful to treat uncertainty in meta-analysis in evidence synthesis. To illustrate, Bayesian and generalized Bayesian analyses are applied on a published meta-analysis on the effect of bio-manipulation.
Required support for French/English translation (for talks)	