

*DigiPlante Seminar 2015*  
*(7th Edition)*

*Forêt d'Orient, 25-26 June 2015*

----- *Program - 25 June* -----

*Session 1: Modelling (and more)*

Chair: B. Bayol

10:00 Paul-Henry Cournède  
*Digiplante: Scientific History and Perspectives*

10:30 Pierre Carmier  
*Plant Growth Modeling in Open Fields: Current Approaches and Open Issues*

11:00 Katarina Streit  
*Plant Modelling with XL at the Example of LIGNUM and ScotsPpine*

11:30 Robert Beyer  
*Spatial Leaf Area Density-based Modelling of Teleonomic Crown Dynamics with respect to Light and Water Availability*

12:00 Etienne Claverie  
*An Energy Balance Model for a Bare Soil Surface*

12:30 Lunch

*Session 2: Monte Carlo Methods in Parameter Estimation and Sensitivity Analysis*

Chair: P. Carmier

14:00 Benoit Bayol  
*Stochasticity and Random Number Generators*

14:30 Gautier Viaud  
*A Parallel Markov Chain Monte Carlo Method for the Estimation of State-Space Models*

15:00 Vasudha Khandelwal  
*Ensemble Kalman Filtering and Application to Joint State-Parameter Estimation*

15:30 Julien Sainte-Marie  
*A Generalization of Sobol Indexes for Correlated Input Variables*

16:00 Coffee Break

***Session 3: Machine Learning, Optimization and Software***

Chair: G. Viaud

16:30 Mingchao Zeljkovic

*Nonparametric Methods for Crop Yield Prediction*

17:00 Olexiy Kyrgyzov

*Data Clustering via Normalized Graph Cut based on Asymmetric Affinity*

17:30 Xiangtuo Chen

*Comparison of Several Particle Swarm Optimization Algorithms and Application to Nonconvex Optimization*

18:00 Benoit Bayol

*Pygmalion (B): Past, Present, Future*

18:30 Conclusion