G. Berry, Course Program 2013-2014, Collège de France

Generalized Time: Multiple clocks, Discrete Time, and Continuous Time

Courses and seminars given in French will be videotaped and dubbed in English
See http://www.college-de-france.fr/site/en-gerard-berry/

Course 1, INRIA Sophia-Antipolis, January 15th 2014, 16:00-17:00. *Esterel and SCADE, from research to industry: the lab view.*
Seminar, 17:00-18:00: Juliette Leblond, Inria Sophia-Antipolis. *Handling time in control theory.*

Course 2, INRIA Sophia-Antipolis, January 22nd 2014, 16:00-17:00. *Esterel and SCADE, from research to industry: the industry view.*
Seminar, 17:00-18:00: **Patrick Flandrin,** Ecole normale supérieure de Lyon**.** *Playing with time in signal processing.*

Course 3, INRIA Sophia-Antipolis, January 29th 2014, 16:00-17:00. *Urgent scientific problems raised by industry for Esterel v7: clock gating, ECOs, and formal verification.*
Seminar, 17:00-18:00: Laurent Maillet-Contoz, ST Microelectronics and **Matthieu Moy**, Verimag Grenoble**.** *Fast accurate simulation of Systems on Chips based on virtual prototyping.*

Course 4, Paris, March 5th 2014, 16:00-17:00. *Multiclock circuits: metastability, synchronizers and asynchronous FIFOs.*
Seminar, 17:00-18:00: Albert Benveniste, Inria Rennes**.** *Loosely coupled clock-based architectures for distributed real-time control.*

Course 5, Paris, March 12th 2014, 16:00-17:00. *Hardware and software clock synchronization in distributed environments.*
Seminar, 17:00-18:00: François Anceau, CNAM Paris. *Wide-scale clock distribution on chips.*

Course 6, Paris, March 19th 2014, 16:00-17:00. *Cooperation between time and communication models.*
Seminar, 17:00-18:00: Karl Johan Åström, Lunds University, Sweden (in English). *Modeling and Simulation - from Physics to Languages and Software.*

Course 7, Paris, March 26th 2014, 16:00-17:00. *Electricity is constructive: the equivalence of electrical propagation and constructive deduction for cyclic synchronous circuits.*
Seminar, 17:00-18:00: **Marc Pouzet**, Ecole Normale Supérieure. *Languages for programming hybrid discrete time / continuous time systems.*

Course 8, Paris, April 2nd 2014, 16:00-17:00. *Playing with time: multiple phases, distributed synchrony, N-synchrony, late calculations, etc.*
Seminar, 17:00-18:00: Albert Cohen, Inria / ENS Paris, and **Marc Duranton,** CEA Saclay. *Programming parallel real-time systems: success and challenges of the synchronous and Kahn networks approaches.*

Seminar Paris, April 9th 2014, 16:00-17:00: **Virginie van Wassenhove**, INSERM, Neurospin / CEA Saclay. *Brain, cognition, and time.*
Course 9, 17:00-18:00. *Discussion and answers to questions related to the 2014 course series*.