

## WODES'02 Preliminary program (at a glance)

### Wednesday October 2

9:00-9:30	Opening session	
9:30-10:30	Invited lecture: Christos C. Cassandras	
10:30-11:00	<i>Coffee Break</i>	
11:00-13:00	<b>WA1: Supervisory control I</b>	<b>WA2: Discrete event systems and transportation (invited session)</b>
13:00-14:30	<i>Lunch</i>	
14:30-16:00	<b>WM1: Supervisory control II</b>	<b>WM2: Timed Petri nets</b>
16:00-16:30	<i>Coffee Break</i>	
16:30-18:00	<b>WP1: Supervisory control and timed systems</b>	<b>WP1: Colored Petri nets</b>

### Thursday October 3

9:00-10:00	Invited lecture: Ed Brinksma	
10:00-10:30	<i>Coffee Break</i>	
10:30-12:30	<b>TA1: Diagnosis</b>	<b>TA2: Max-plus and dioid algebra</b>
12:30-14:00	<i>Lunch</i>	
14:00-16:00	<b>TM1: Petri net languages and supervisory control</b>	<b>TM2: Perturbation analysis and queueing systems</b>
16:00-16:30	<i>Coffee Break</i>	
16:30-18:00	<b>TP1: Distributed systems</b>	<b>TP2: Analysis and verification of DES</b>

### Friday October 4

9:00-10:00	Invited lecture: Bruce H. Krogh	
10:00-10:30	<i>Coffee Break</i>	
10:30-12:30	<b>FA1: Hybrid systems</b>	<b>FA2: Optimization techniques for discrete event systems (invited session)</b>
12:30-14:00	<i>Lunch</i>	
14:00-15:30	<b>FM1: Implementation of supervisory controllers (invited session)</b>	<b>FM2: Discrete event methodologies in telecommunications (invited session)</b>
15:30-16:00	Conclusion	

## WODES'02 Preliminary program (complete)

### Wednesday October 2

9:00-9:30	Opening session
9:30-10:30	Invited lecture: Christos G. Cassandras (Boston University). <i>From discrete event to hybrid systems</i>
10:30-11:00	<i>Coffee Break</i>
11:00-13:00	<b>WA1: Supervisory control I</b> <ul style="list-style-type: none"> <li>• T.-S. Yoo, S. Lafortune (US) <i>Decentralized supervisory control: a new architecture with a dynamic decision fusion rule</i></li> <li>• S. Tripakis (FR) <i>Decentralized control of discrete event systems with bounded or unbounded delay communication</i></li> <li>• J. Komenda (NL) <i>Computation of supremal sublanguages of supervisory control using coalgebra</i></li> <li>• S. Takai, T. Ushio (JP) <i>Effective computation of an <math>Lm(G)</math>-closed, controllable, and observable sublanguage arising in supervisory control</i></li> </ul>
11:00-13:00	<b>WA2: Discrete event systems and transportation (invited session)</b> <ul style="list-style-type: none"> <li>• P. Falkman, J. Nielsen, B. Lennartson (SE) <i>A formal mapping of static information models into dynamic models for process planning and control purposes</i></li> <li>• B. De Schutter, T.J.J. van den Boom (NL) <i>Connection and speed control in railway systems: a model predictive control approach</i></li> <li>• A. Giua, C. Seatzu (IT) <i>Liveness enforcing supervisors for railway networks using ES2PR Petri net</i></li> <li>• M.P. Fanti (IT) <i>A deadlock avoidance strategy for AGV systems modelled by coloured Petri nets</i></li> </ul>
13:00-14:30	<i>Lunch</i>
14:30-16:00	<b>WM1: Supervisory control II</b> <ul style="list-style-type: none"> <li>• S.L. Ricker (CA) <i>A discrete-event systems approach to communication induced checkpointing</i></li> <li>• A.E.C. da Cunha, J.E.R. Cury, B.H. Krogh (BR, US) <i>An assume-guarantee reasoning for hierarchical coordination of discrete event systems</i></li> <li>• I. Romanovski, P.E. Caines (CA) <i>Multi-agent product systems: analysis, synthesis and control</i></li> </ul>
14:30-16:00	<b>WM2: Timed Petri nets</b> <ul style="list-style-type: none"> <li>• B. Trouillet, A. Benasser, J.-C. Gentina (FR) <i>Transformation of the cyclic scheduling problem of a large class of FMS into the search of an optimized initial marking of a linearizable weighted t-system</i></li> <li>• T.-E. Lee, J.-W. Seo, S.-H. Park (KR) <i>An extended event graph with negative places and negative tokens for time window constraints</i></li> <li>• P. Bonhomme, P. Aygalinc, S. Calvez (FR) <i>Firing instant based approach to control time critical systems in multi-product processing</i></li> </ul>
16:00-16:30	<i>Coffee Break</i>
16:30-18:00	<b>WP1: Supervisory control and timed systems</b> <ul style="list-style-type: none"> <li>• A. Khoumsi (CA) <i>Supervisory control of dense real-time discrete-event systems with partial observation</i></li> <li>• A. Khatab, E. Niel (FR) <i>State feedback stabilizing controller for failure recovery of timed discrete event systems</i></li> <li>• S. Haar, F. Simonot-Lion, L. Kaiser, J.Toussaint (FR) <i>Equivalence of timed state machines and safe TPN</i></li> </ul>
16:30-18:00	<b>WP2: Colored Petri nets</b> <ul style="list-style-type: none"> <li>• B. Lindstrøm, L. Wells (DK) <i>Towards a monitoring framework for discrete-event system simulations</i></li> <li>• E. Roszkowska (PL) <i>Undirected colored Petri nets for modeling and supervisory control of AGV systems</i></li> <li>• J. Rosell (ES) <i>Local contact state space generation using colored Petri nets</i></li> </ul>

### Thursday October 3

9:00-10:00	Invited lecture: Ed Brinksma (Twente University): <i>Model checking embedded system designs</i>
10:00-10:30	<i>Coffee Break</i>
10:30-12:30	<b>TA1: Diagnosis</b> <ul style="list-style-type: none"> <li>• E. García, F. Morant, R. Blasco-Giménez, R. Correcher, E. Quiles (ES) <i>Centralized modular diagnosis and the phenomenon of coupling</i></li> <li>• R. Su, W.M. Wonham, J. Kurien, X. Koutsoukos (CA, US) <i>Distributed diagnosis for qualitative systems</i></li> <li>• R.K. Boel, J.H. van Schuppen (BE, NL) <i>Decentralized failure diagnosis for discrete-event systems with constrained communication between diagnosers</i></li> <li>• A. Benveniste, E. Fabre, C. Jard, S. Haar (FR) <i>Diagnosis of asynchronous discrete event systems, a net unfolding approach</i></li> </ul>
10:30-12:30	<b>TA2: Max-plus and dioid algebra</b> <ul style="list-style-type: none"> <li>• Y. Cheng, D-Z. Zheng (CN) <i>On the cycle time of non-autonomous min-max systems</i></li> <li>• R. Lüders, R. Santos-Mendes (BR) <i>Generalized multivariable control of discrete event systems in dioids</i></li> <li>• M. Lhommeau, L. Hardouin, B. Cottenceau (FR) <i>Disturbance decoupling of timed event graphs by output feedback controller</i></li> <li>• G. Schullerus, V. Krebs (DE) <i>A method for estimating the holding times in timed event graphs</i></li> </ul>
12:30-14:00	<i>Lunch</i>
14:00-16:00	<b>TM1: Petri net languages and supervisory control</b> <ul style="list-style-type: none"> <li>• A. Ghaffari, N.Rezg, X.-L. Xie (FR) <i>Algebraic and geometric characterization of Petri net controllers using theory of regions</i></li> <li>• L.E. Holloway, A.S. Khare (US) <i>Computing bounds for forbidden state reachability functions for controlled Petri nets</i></li> <li>• L. Aguirre, O. Begovich, A. Ramirez (MX) <i>Observability with respect to a language in discrete event systems modeled by IPN</i></li> <li>• R.S. Sreenivas (US) <i>On minimal representations of Petri net languages</i></li> </ul>
14:00-16:00	<b>TM2: Perturbation analysis and queueing systems</b> <ul style="list-style-type: none"> <li>• B. Heidergott (NL) <i>Variability expansion for performance characteristics of (max,plus)-linear systems</i></li> <li>• B. Gaujal, E. Hyon (FR) <i>Optimal routing policies in deterministic queues in tandem</i></li> <li>• H. Yu, C.G. Cassandras (US) <i>Perturbation analysis and optimization of a flow controlled manufacturing system</i></li> <li>• M.A. Ayu, M. Cardew-Hall (AU) <i>An application of IPA approach on the optimization of a mining port stockyard system</i></li> </ul>
16:00-16:30	<i>Coffee Break</i>
16:30-17:30	<b>TP1: Distributed systems</b> <ul style="list-style-type: none"> <li>• Z.A. Banaszak, M. Polak (PL) <i>Deadlock-free distributed control for repetitive flows</i></li> <li>• M. A. Jafari, H. Darabi, T. O. Boucher, A. Amini (US) <i>A distributed discrete event dynamic model for supply chain of business enterprises</i></li> </ul>
16:30-18:00	<b>TP2: Analysis and verification of DES</b> <ul style="list-style-type: none"> <li>• A. Ghariani, A.K.A. Toguyeni, E. Craye (FR) <i>A functional graph approach for alarm filtering and fault recovery for automated production systems</i></li> <li>• J. Merseguer, S. Bernardi, J. Campos, S. Donatelli (ES, IT) <i>A compositional semantics for UML state machines aimed at performance evaluation</i></li> <li>• J.-M. Roussel, J.-M. Faure (FR) <i>An algebraic approach for PLC programs verification</i></li> </ul>

## Friday October 4

9:00-10:00	Invited lecture: Bruce H. Krogh (Carnegie Mellon University): <i>Recent advances in discrete analysis and control of hybrid systems</i>
10:00-10:30	<i>Coffee Break</i>
10:30-12:30	<b>FA1: Hybrid systems</b> <ul style="list-style-type: none"><li>• S. Takai, T. Ushio (JP) <i>State feedback control of hybrid automata with forcible events</i></li><li>• H. Xia, A. Trontis, Y. Pang, M. Spathopoulos (GB) <i>Supervisory eventuality synthesis</i></li><li>• T. Moor, J.M. Davoren, J. Raisch (AU, DE) <i>Strategic refinements in abstraction based supervisory control of hybrid systems</i></li><li>• A. Bemporad, A. Giua, C. Seatzu (IT) <i>An iterative algorithm for the optimal control of continuous-time switched linear systems</i></li></ul>
10:30-12:30	<b>FA2: Optimization techniques for discrete event systems (invited session)</b> <ul style="list-style-type: none"><li>• B. De Schutter, T.J.J. van den Boom (NL) <i>Model predictive control for max-min-plus-scaling systems: efficient implementation</i></li><li>• M. Giordano, F. Martinelli, P. Valigi (IT) <i>The effect of finite buffers on the optimal safety stock for unreliable systems.</i></li><li>• J. Sadr, R. Malhame,(CA) <i>Unreliable transfer line throughput maximization</i></li><li>• A. Di Febbraro, D. Giglio, R. Minciardi, S. Sacone (IT) <i>Optimization of manufacturing systems modelled by timed Petri nets</i></li></ul>
12:30-14:00	<i>Lunch</i>
14:00-15:30	<b>FM1: Implementation of supervisory controllers (invited session)</b> <ul style="list-style-type: none"><li>• A. Hellgren, B. Lennartson, M. Fabian (SE) <i>Modelling and PLC-based implementation of modular supervisory control</i></li><li>• M.H. de Queiroz, J.E.R. Cury (BR) <i>Synthesis and implementation of local modular supervisory control for a manufacturing cell</i></li><li>• J. Liu, H. Darabi (US) <i>Ladder logic implementation of Ramadge-Wonham supervisory controller</i></li></ul>
14:00-15:30	<b>FM2: Discrete event methodologies in telecommunications (invited session)</b> <ul style="list-style-type: none"><li>• Y. Wardi, G. Riley (US) <i>IPA for loss volume and buffer workload in tandem SFM networks</i></li><li>• F. Vázquez Abad, V. Krishnamurthy, S. Singh (AU) <i>Self learning admission control for multimedia wireless DS-CDMA systems</i></li><li>• F. Vázquez-Abad, I. Baltcheva (AU) <i>Intelligent simulation for the estimation of the uplink outage probabilities in CDMA networks</i></li></ul>
15:30-16:00	Conclusion