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Continuous and Hybrid Petri Nets: The GISED perspective

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The present report is written after some requests following the presentations in the tutorial in honor of Prof. Laura Recalde, Continuous Petri Nets: Expressivity, Analysis and Control of a Class of Hybrid Systems (a satellite event of the 30th International Conference on Applications and Theory of Petri Nets, Paris, June 23, 2009). It provides a structured view of works on this topic produced by members of the GISED (Grupo de Ingeniería de Sistemas de Eventos Discretos, Instituto de Investigación en Ingeniería de Aragón and Dept. de Informática e Ingeniería de Sistemas, Universidad de Zaragoza), with cooperation of colleagues of different research centers.

When an article is a revised/extended version of an older one, we keep in the main list the most complete and recent. Nevertheless, the reference of the previous version is given in a footnote.
1. General perspectives

Three of the following articles correspond to keynote speeches, the last to an invited contribution to a Spanish journal. Usually they are not only tutorial/survey.


2. Autonomous models (I): Analysis and verification


3. Autonomous models (II): State estimation and fault diagnosis


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4. Timing net models: Server’s semantics, related formalisms and expressivity


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5. Timed net models (I): Analysis and verification


6. Timed net models (II): Observability and observers


7. Timed net models (III): Controllability and sampling


8. Timed net models (IV): Control issues


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9. Miscelanea

