



# New representations for (max,+) automata with applications to performance evaluation and control of discrete event systems

Submitted by Sébastien Lahaye on Thu, 06/19/2014 - 14:37

Titre	New representations for (max,+) automata with applications to performance evaluation and control of discrete event systems
Type de publication	Article de revue
Auteur	Boukra, Rabah [1], Lahaye, Sébastien [2], Boimond, Jean-Louis [3]
Editeur	Springer Verlag
Type	Article scientifique dans une revue à comité de lecture
Année	2015
Langue	Anglais
Date	June 2015
Pagination	295-322
Volume	25
Titre de la revue	Discrete Event Dynamic Systems
ISSN	0924-6703
Mots-clés	(Max [4], +) automata [5], control [6], discrete event systems [7], performance evaluation [8]
Résumé en anglais	<p>A large class of timed discrete event systems can be modeled by means of (max,+) automata, that is automata with weights in the so-called (max,+) algebra. In this contribution, specific recursive equations over (max,+) and (min,+) algebras are shown to be suitable for describing extremal behaviors of (max,+) automata. Several pertinent performance indicators can be easily derived or approximated from these representations with a low computation complexity. It is also shown how to define inputs which model exogenous influences on their dynamic evolution, and a new approach for the control of (max,+) automata is proposed.</p>
URL de la notice	<a href="http://okina.univ-angers.fr/publications/ua3349">http://okina.univ-angers.fr/publications/ua3349</a> [9]
DOI	10.1007/s10626-013-0178-y [10]
Titre abrégé	Discrete Event Dyn Syst

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## Liens

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[10] <http://dx.doi.org/10.1007/s10626-013-0178-y>

Publié sur *Okina* (<http://okina.univ-angers.fr>)