



Duality and interval analysis over idempotent semirings

Submitted by Emmanuel Lemoine on Thu, 01/30/2014 - 14:34

Titre	Duality and interval analysis over idempotent semirings
Type de publication	Article de revue
Auteur	Brunsch, Thomas [1], Hardouin, Laurent [2], Maia, Carlos-Andrei [3], Raisch, Jörg [4]
Editeur	Elsevier
Type	Article scientifique dans une revue à comité de lecture
Année	2012
Langue	Anglais
Date	2012/11/15
Numéro	10
Pagination	2436 - 2454
Volume	437
Titre de la revue	Linear Algebra and its Applications
ISSN	0024-3795
Mots-clés	Idempotent semiring [5], interval analysis [6], Max-plus algebra [7], Residuation theory [8]
Résumé en anglais	In this paper semirings with an idempotent addition are considered. These algebraic structures are endowed with a partial order. This allows to consider residuated maps to solve systems of inequalities $A \otimes X \sqsubseteq B$ (see [3]). The purpose of this paper is to consider a dual product, denoted \odot , and the dual residuation of matrices, in order to solve the following inequality $A \otimes X \sqsubseteq X \sqsubseteq B \odot X$. Sufficient conditions ensuring the existence of a non-linear projector in the solution set are proposed. The results are extended to semirings of intervals such as they were introduced in [25].
URL de la notice	http://okina.univ-angers.fr/publications/ua1384 [9]
DOI	10.1016/j.laa.2012.06.025 [10]
Lien vers le document	http://dx.doi.org/10.1016/j.laa.2012.06.025 [10]

Liens

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- [2] <http://okina.univ-angers.fr/laurent.hardouin/publications>
- [3] [http://okina.univ-angers.fr/publications?f\[author\]=4189](http://okina.univ-angers.fr/publications?f[author]=4189)
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