



Multiscale imaging of plants: current approaches and challenges

Submitted by François CHAPEA... on Wed, 02/18/2015 - 11:18

Titre	Multiscale imaging of plants: current approaches and challenges
Type de publication	Article de revue
Auteur	Rousseau, David [1], Chéné, Yann [2], Belin, Etienne [3], Semaan, Georges [4], Trigui, G. [5], Boudehri, K. [6], Franconi, Florence [7], Chapeau-Blondeau, François [8]
Editeur	BioMed Central
Type	Article scientifique dans une revue à comité de lecture
Année	2015
Langue	Anglais
Pagination	6
Volume	11
Titre de la revue	Plant Methods
Mots-clés	Fractal [9], ImageJ plugins [10], Multiscale filtering [11], Mutiscale imaging [12], Wavelets [13]
Résumé en anglais	<p>We review a set of recent multiscale imaging techniques, producing high-resolution images of interest for plant sciences. These techniques are promising because they match the multiscale structure of plants. However, the use of such high-resolution images is challenging in the perspective of their application to high-throughput phenotyping on large populations of plants, because of the memory cost for their data storage and the computational cost for their processing to extract information. We discuss how this renews the interest for multiscale image processing tools such as wavelets, fractals and recent variants to analyse such high-resolution images.</p>
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DOI	10.1186/s13007-015-0050-1 [15]

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