

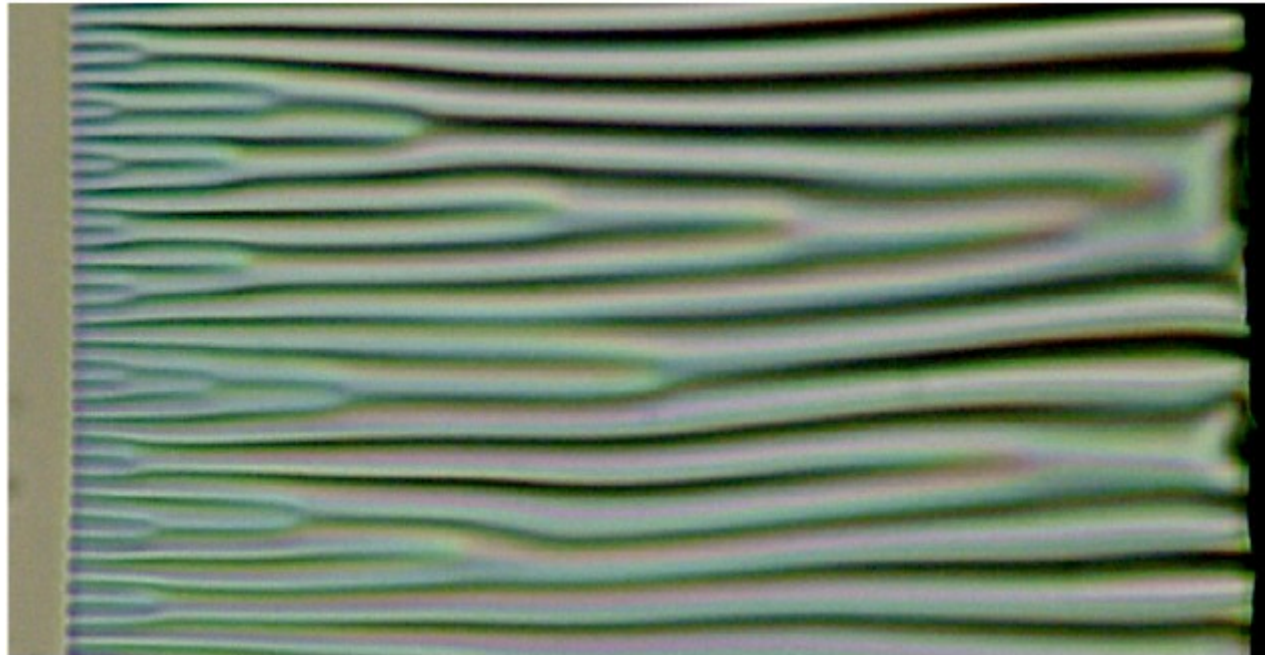
Hiérarchie de rides

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Cyprien Gay

*Laboratoire Matière et Systèmes
Complexes
CNRS UMR 7057
Université Paris Diderot*



Hugues Vandeparre
Ph.D. 28 Mai 2010
Mons

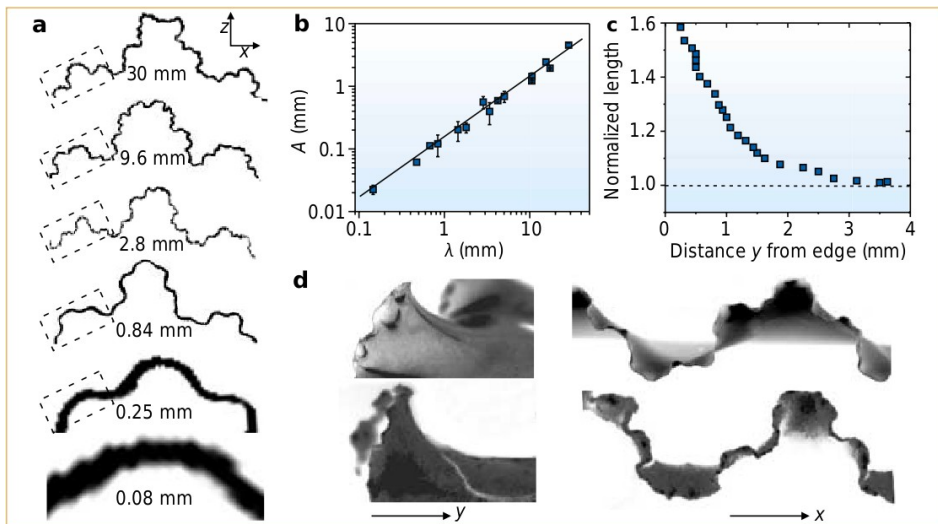
Colloque 27 mai

Collaboration:
Arezki Boudaoud (ENS, Paris)
Abbas Sabbah (Umons)
Julien Léopoldès (Université Paris Sud)

Discussions :
José Bico
Benoît Roman
Arezki Boudaoud
Benny Davidovitch

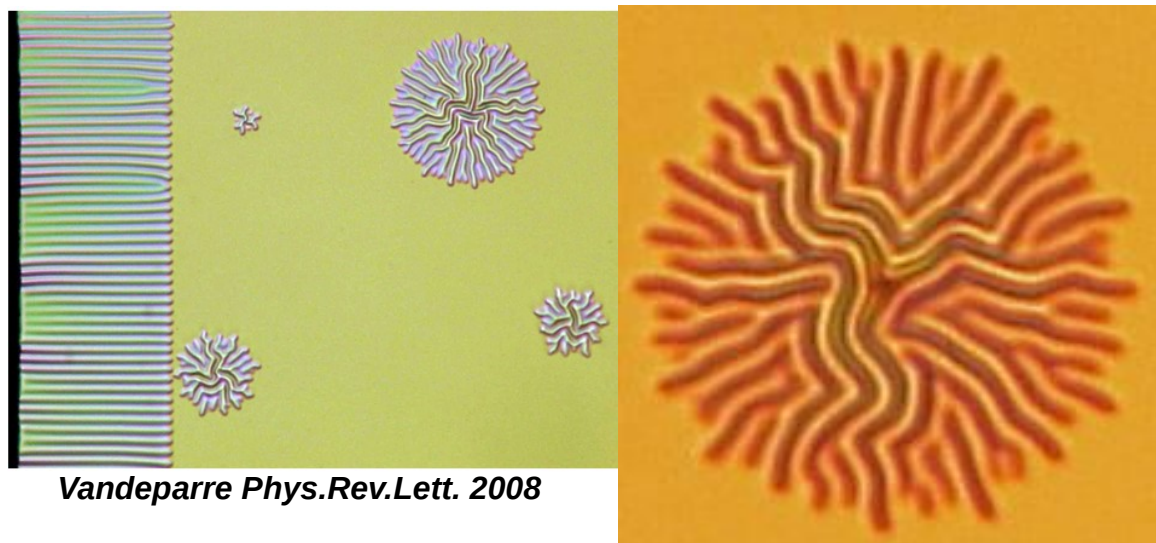
Hiérarchies

Métrie



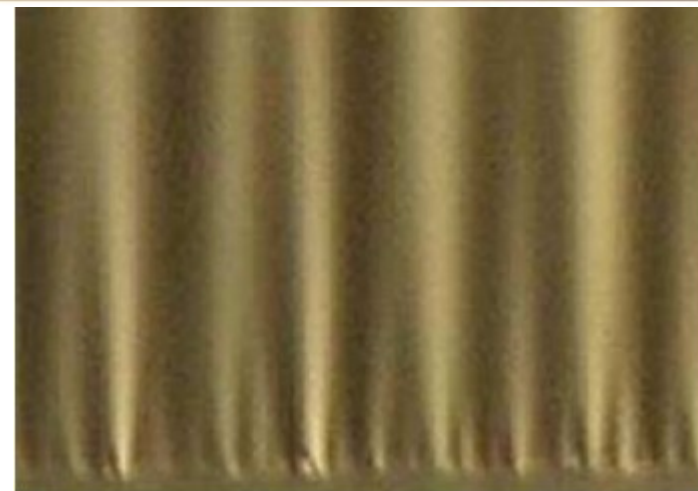
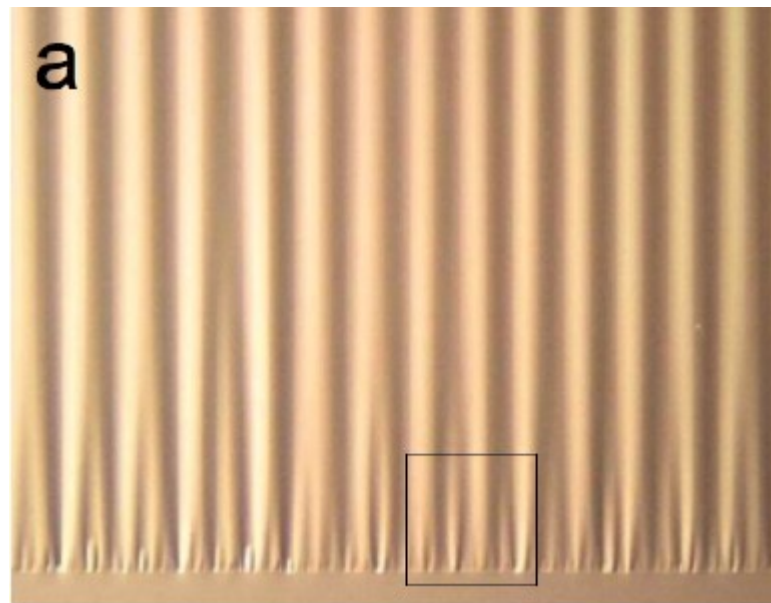
Sharon et al. 2002

Géométrie divergente



Vandeparre Phys.Rev.Lett. 2008

Longueurs d'onde imposées



Huang, Davidovitch, Santangelo, Russel, Menon, PRL, in press

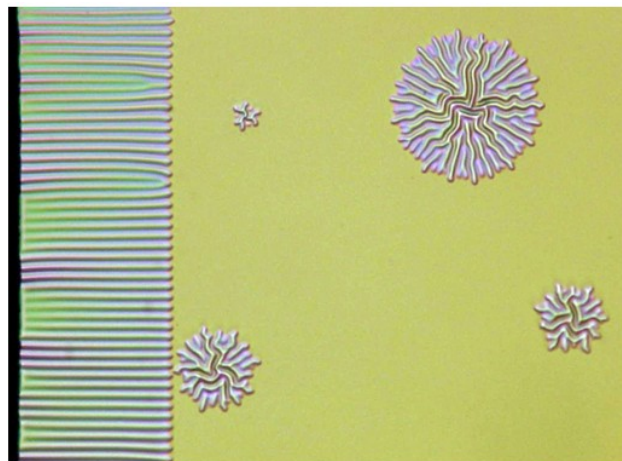
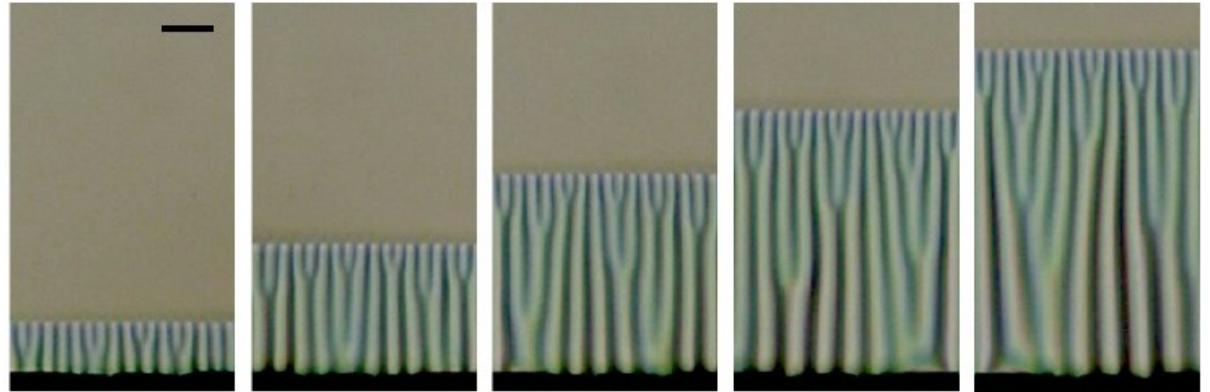
Hiérarchies

~~Métrique~~

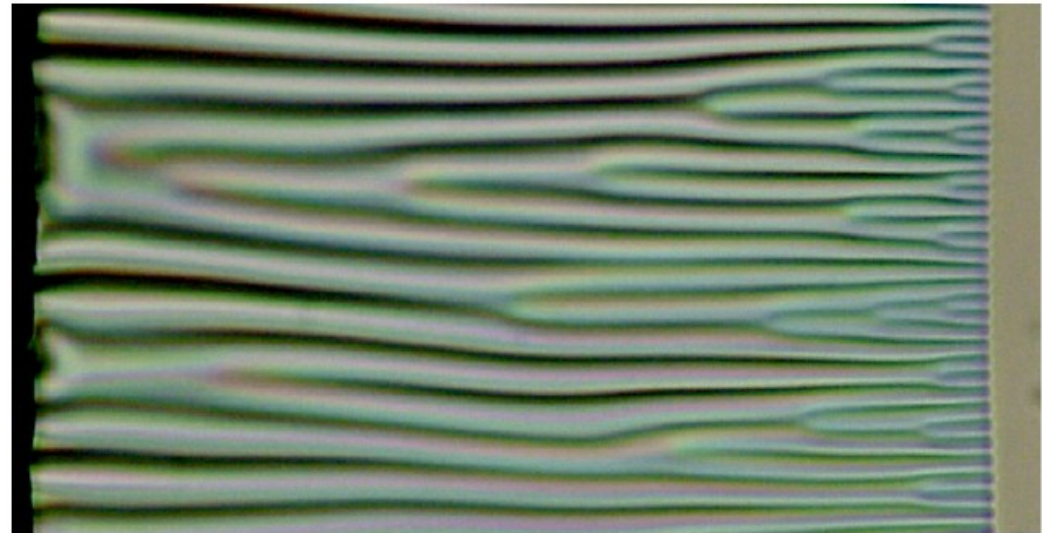
~~Géométrie divergente~~

~~Longueurs d'onde imposées~~

Hiérarchie mûrissante ?

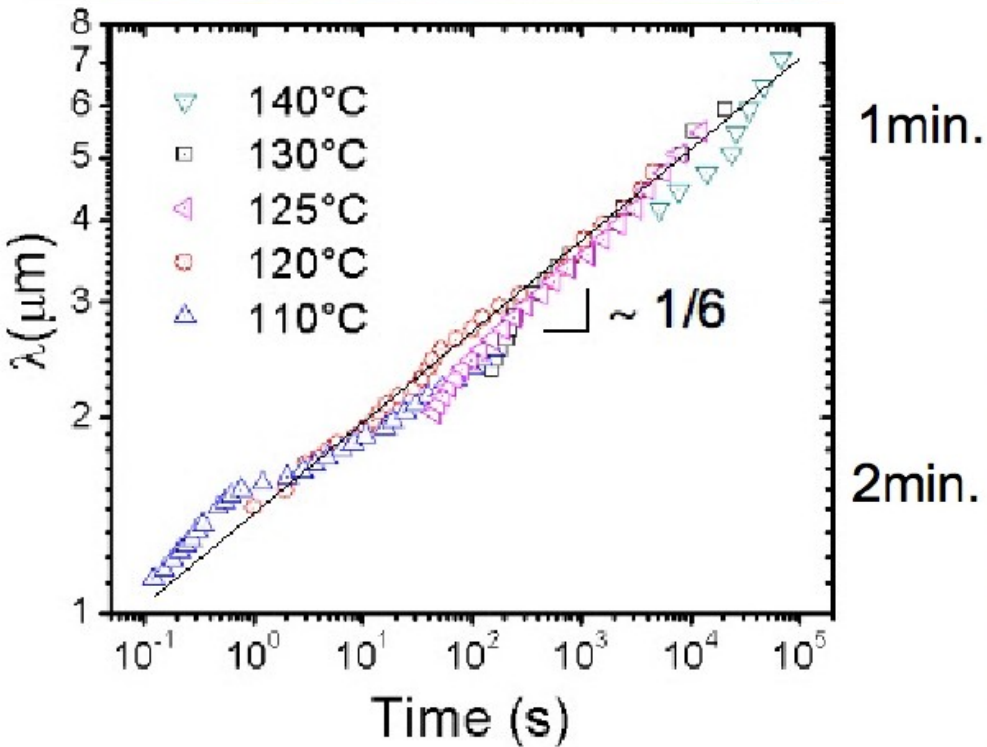
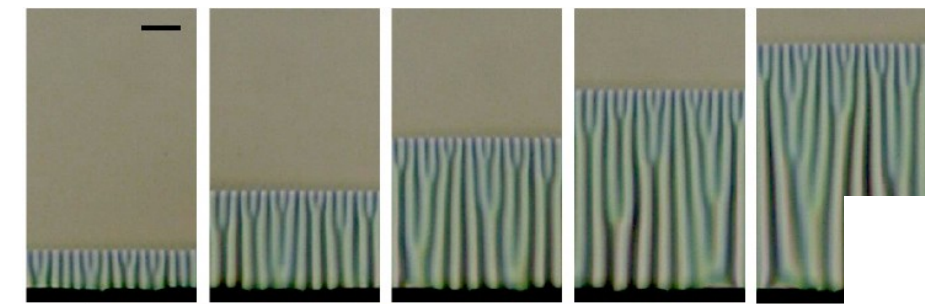


Vandeparre Phys.Rev.Lett. 2008



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Hiérarchie mûrissante ?



1min.

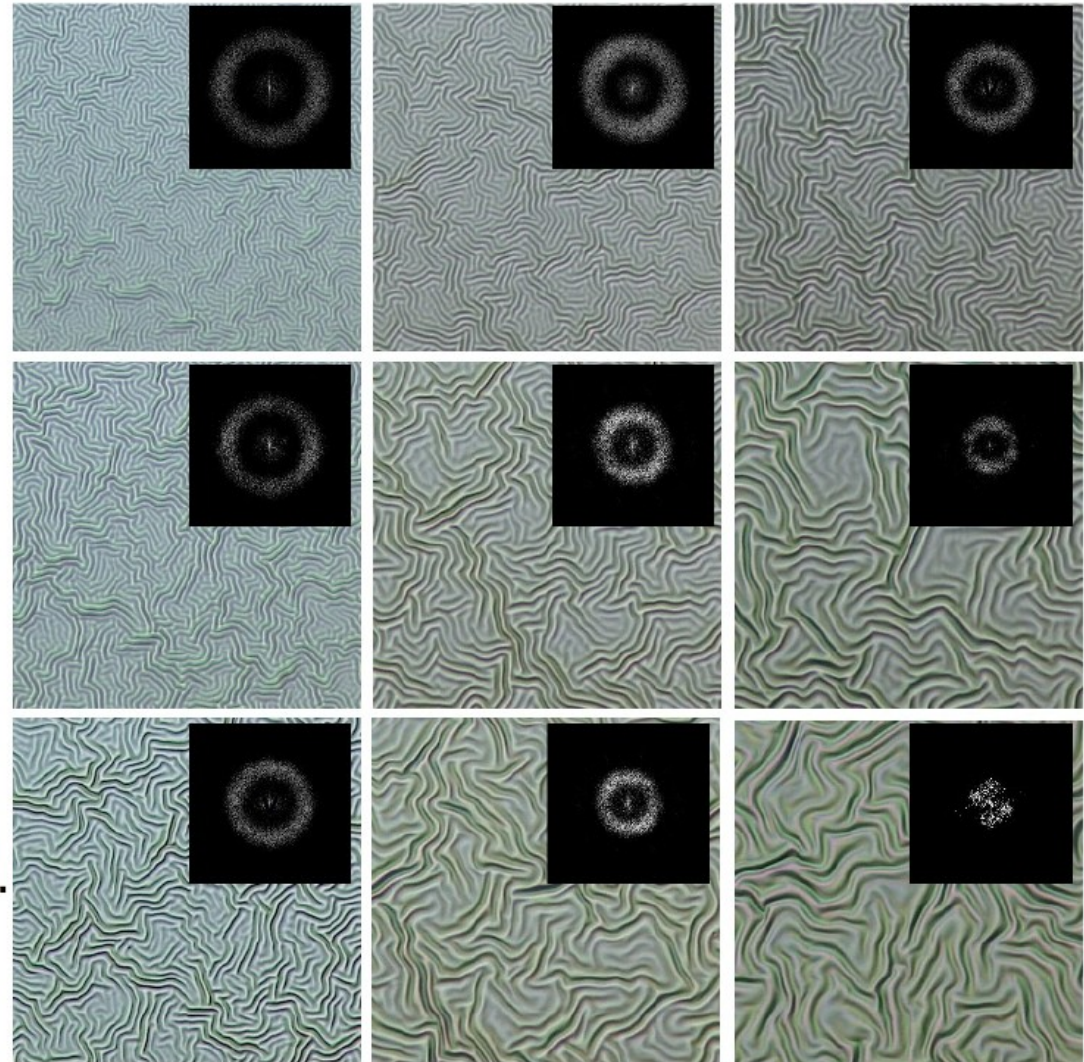
2min.

15min.

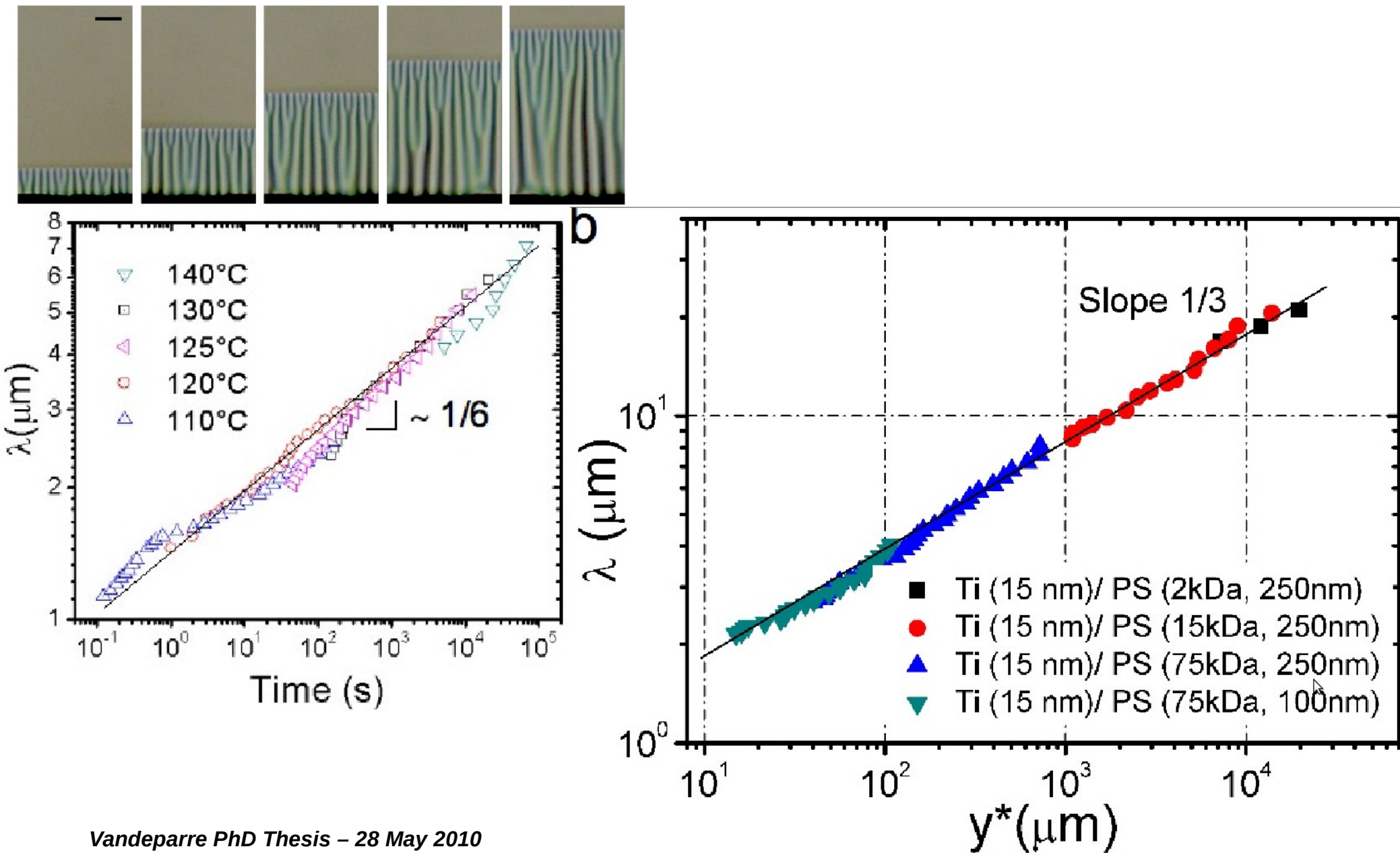
110°C

120°C

130°C



Hiérarchie mûrissante ?



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Hiérarchies

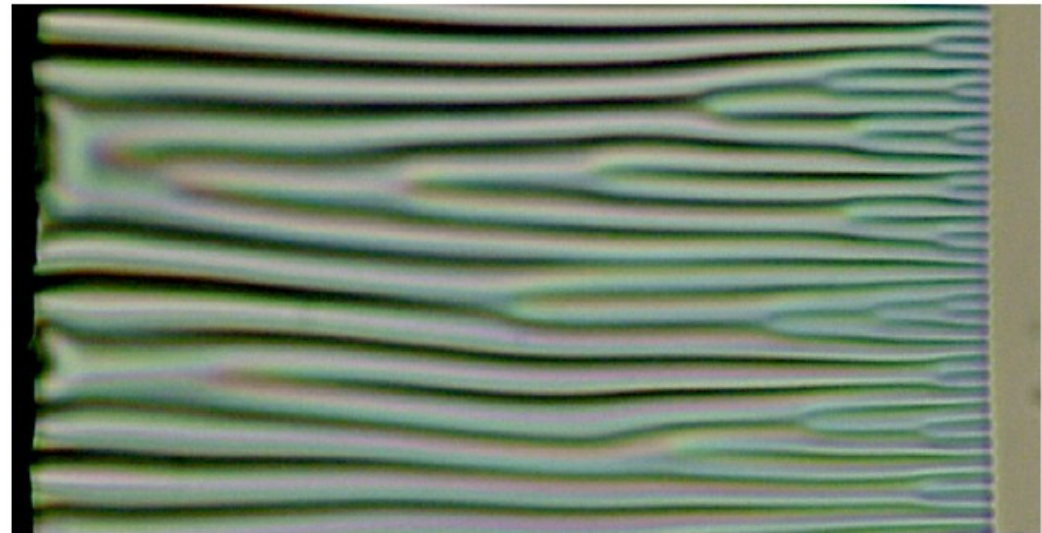
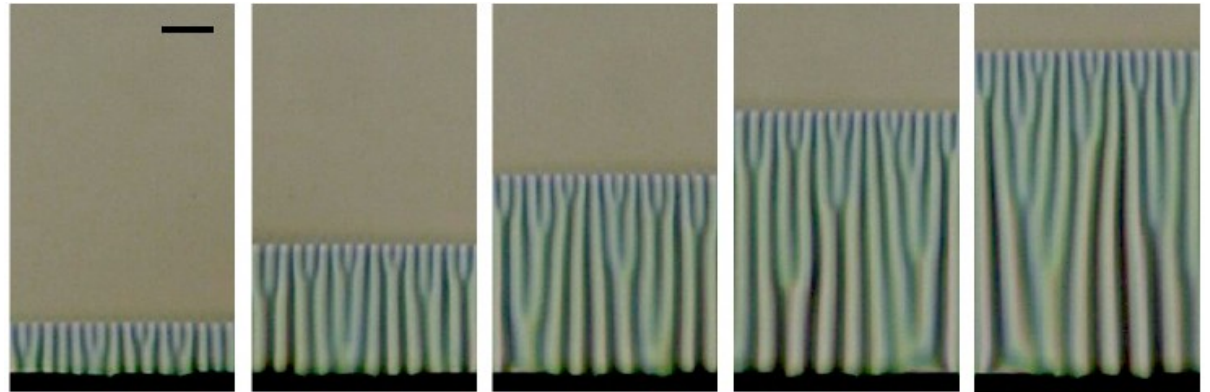
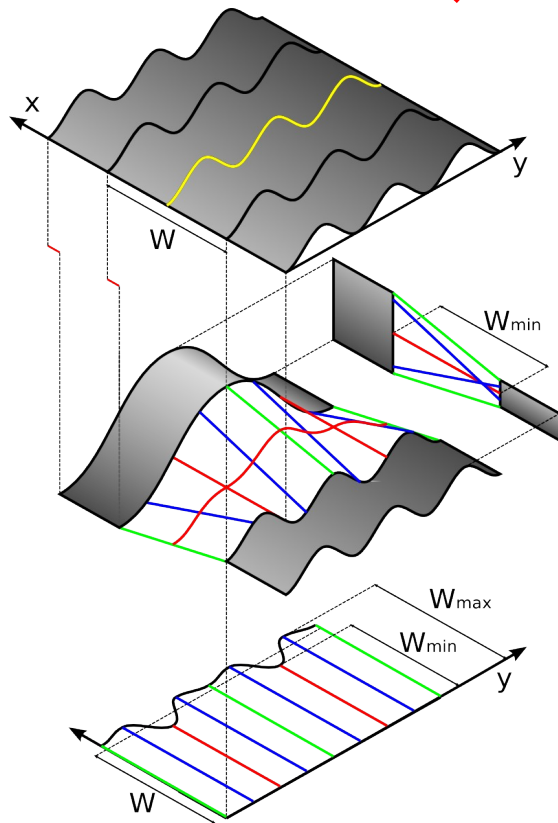
~~Métrique~~

~~Géométrie divergente~~

~~Longueurs d'onde imposées~~

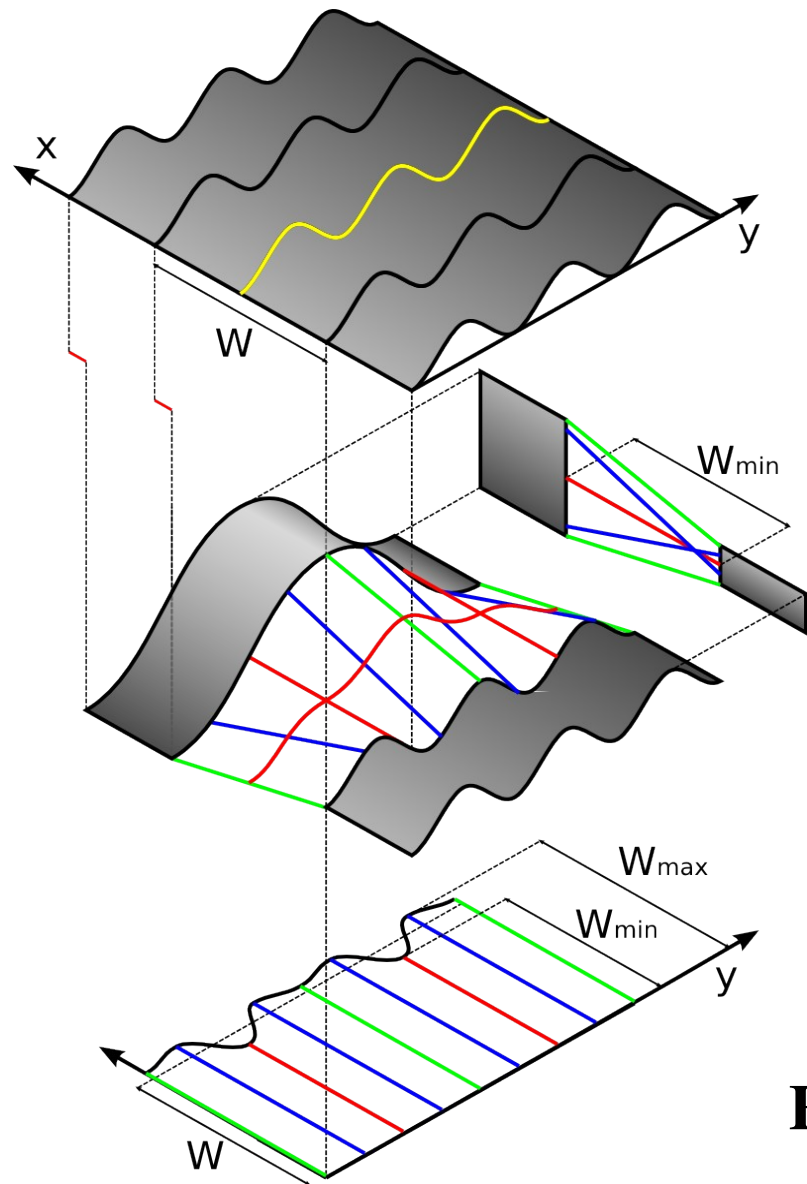
~~Mûrissement~~

Hiérarchie spontanée ?



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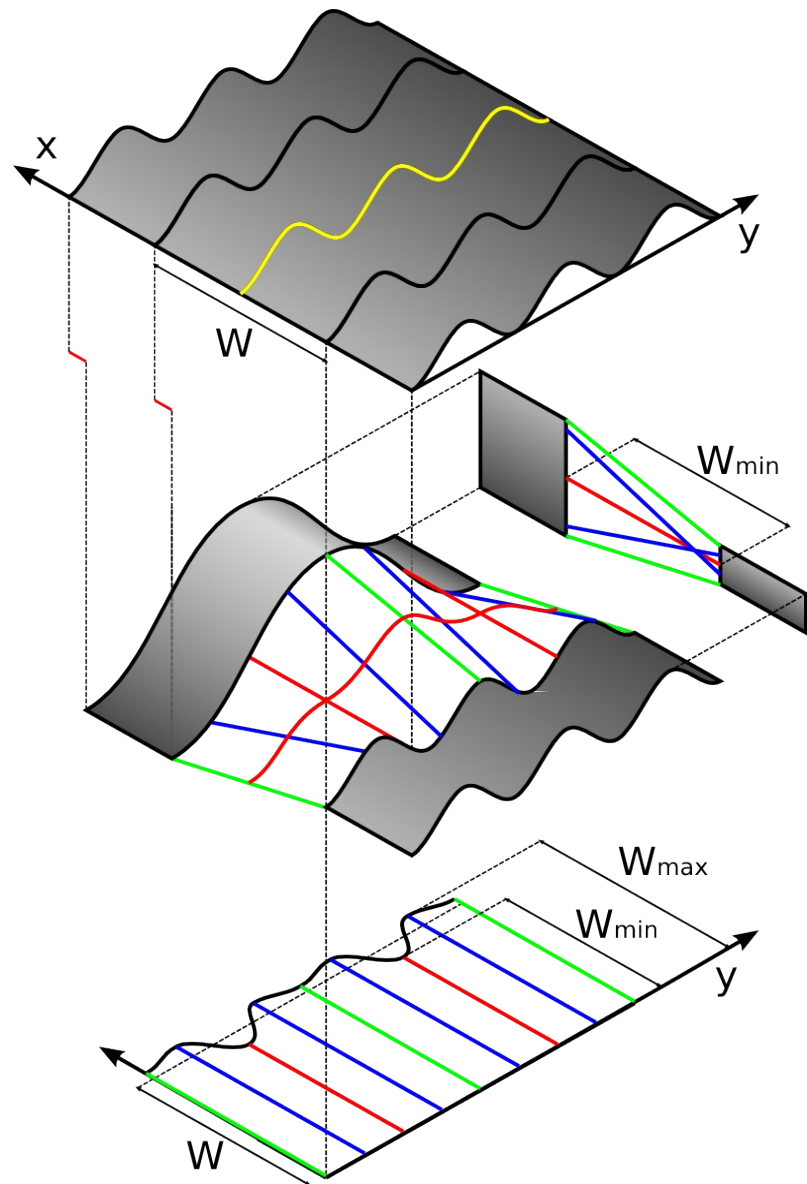
Hiérarchie spontanée - June 2009



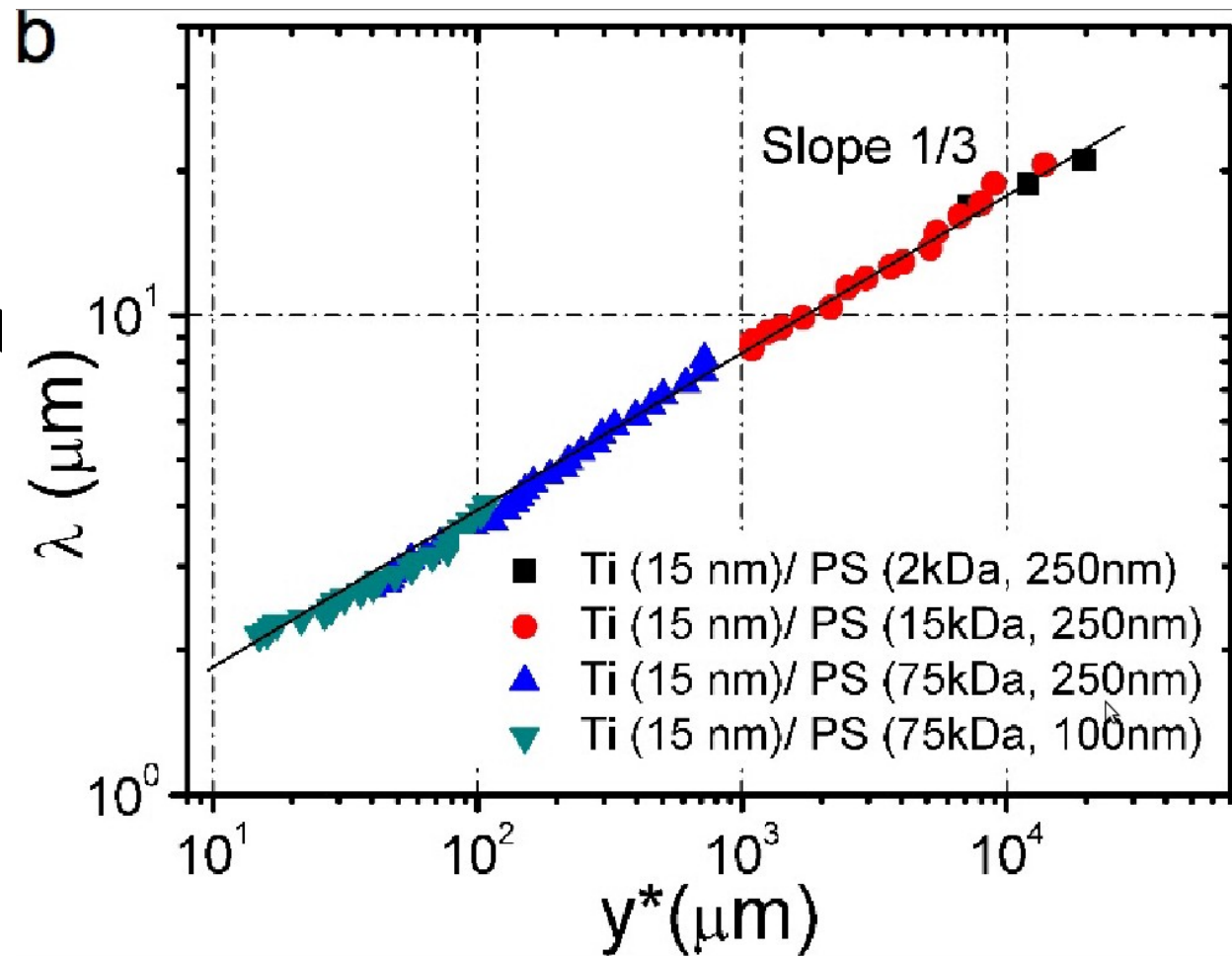
Exposant 1/3

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Hiérarchie spontanée - June 2009



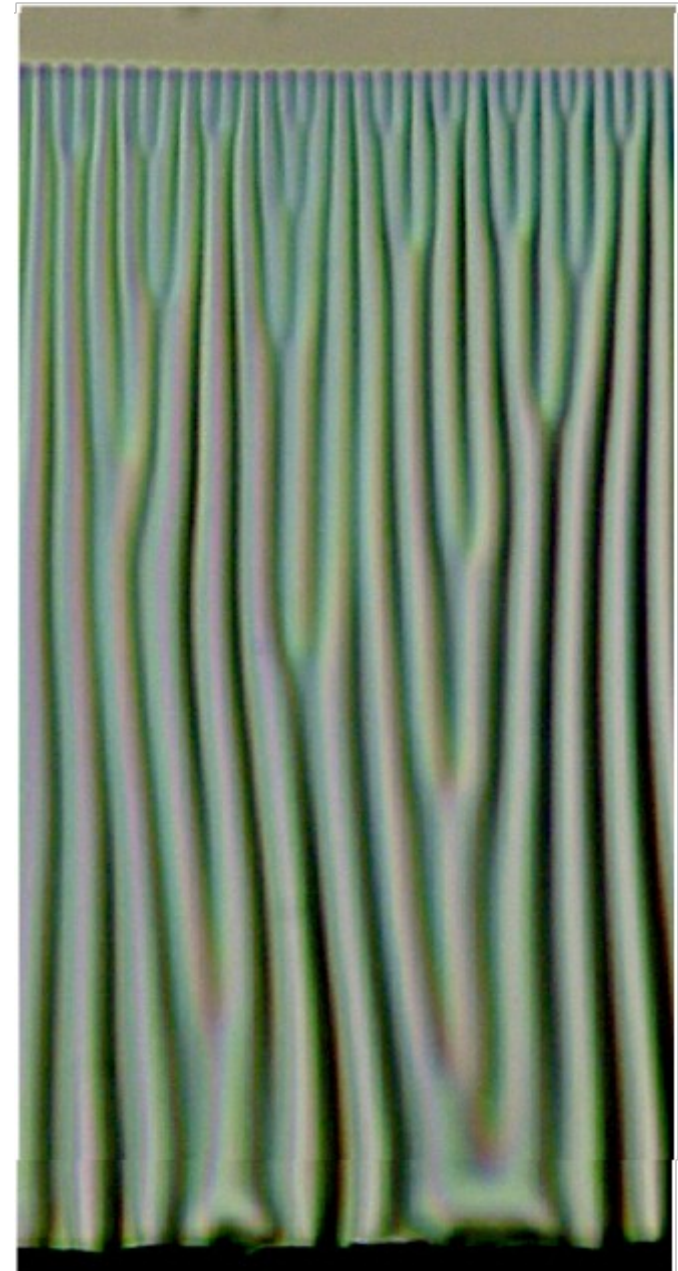
Défauts : exposant 1/3



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Hiérarchie spontanée - June 2009

a



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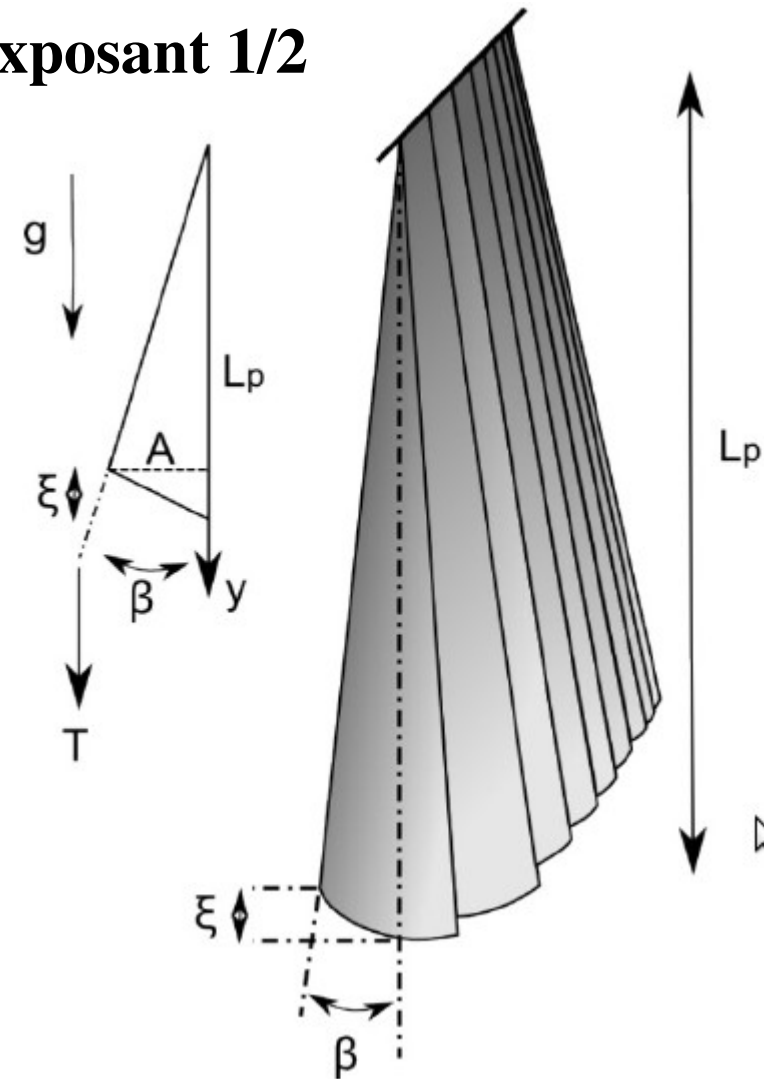
Hiérarchie spontanée - June 2009

a



Défauts : exposant $1/3$

Gravité : exposant $1/2$



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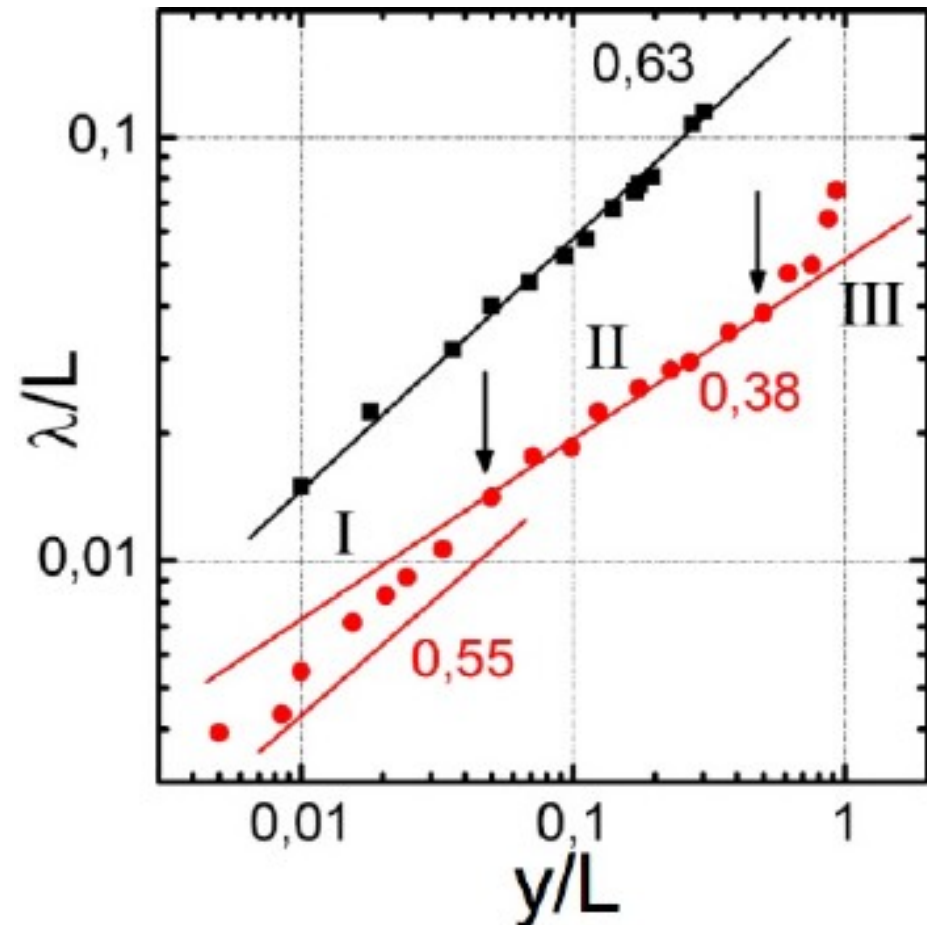
Hiérarchie spontanée - July 2009

a



Défauts : exposant $1/3$

Gravité : exposant $1/2$

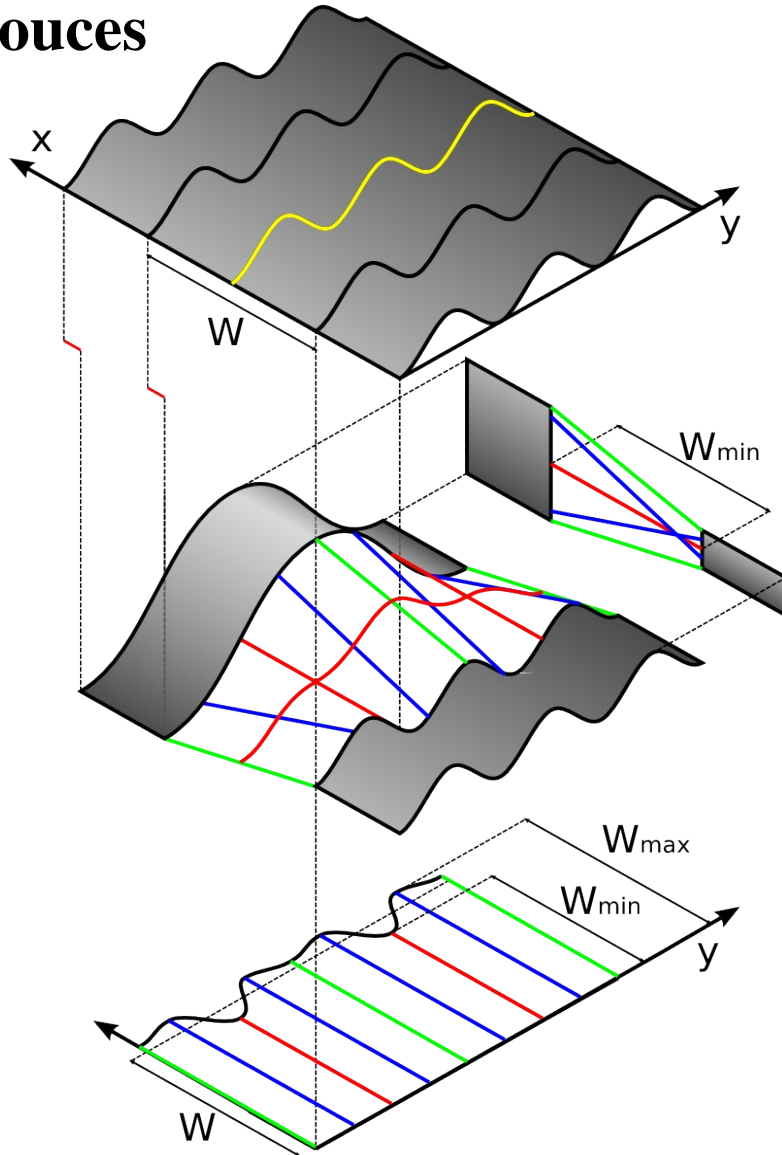


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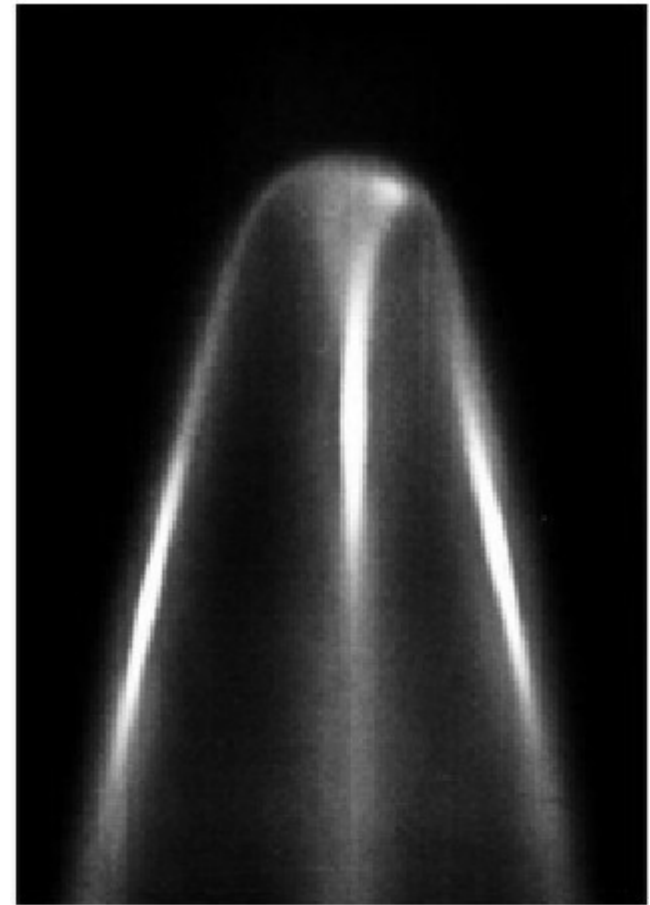
Transitions douces ou focalisées ?

November 2009

Douces



Focalisées (D-cones)



Hiérarchie spontanée - December 2009

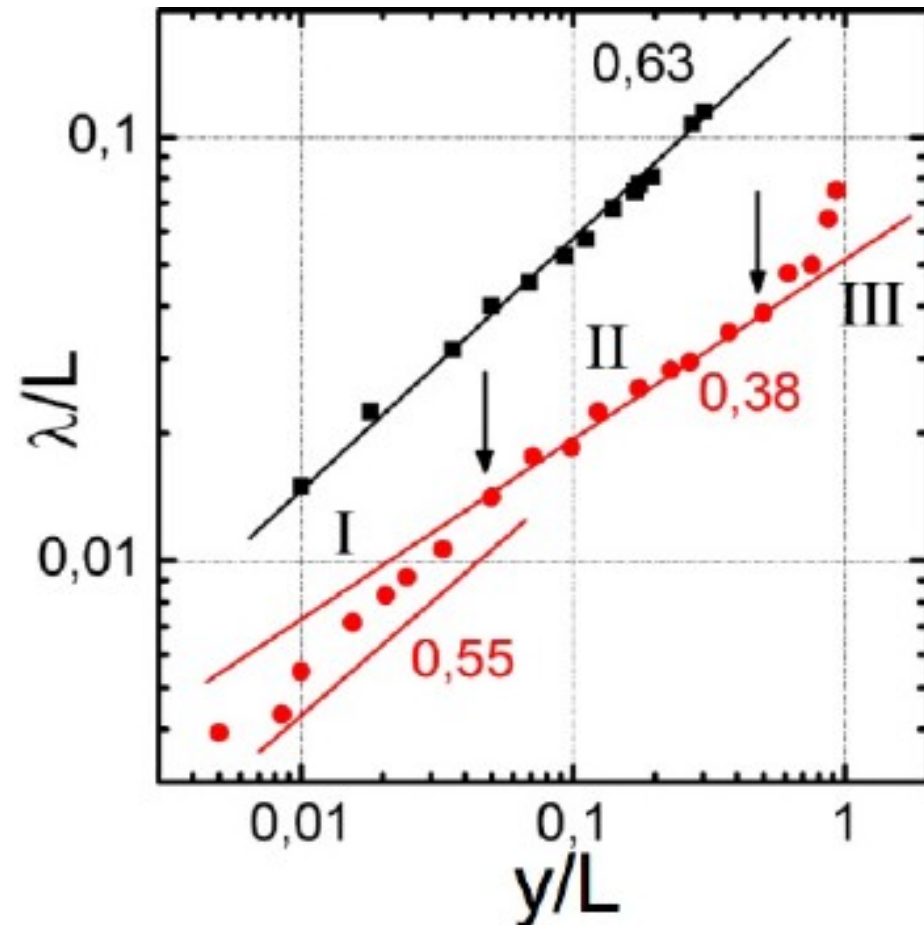
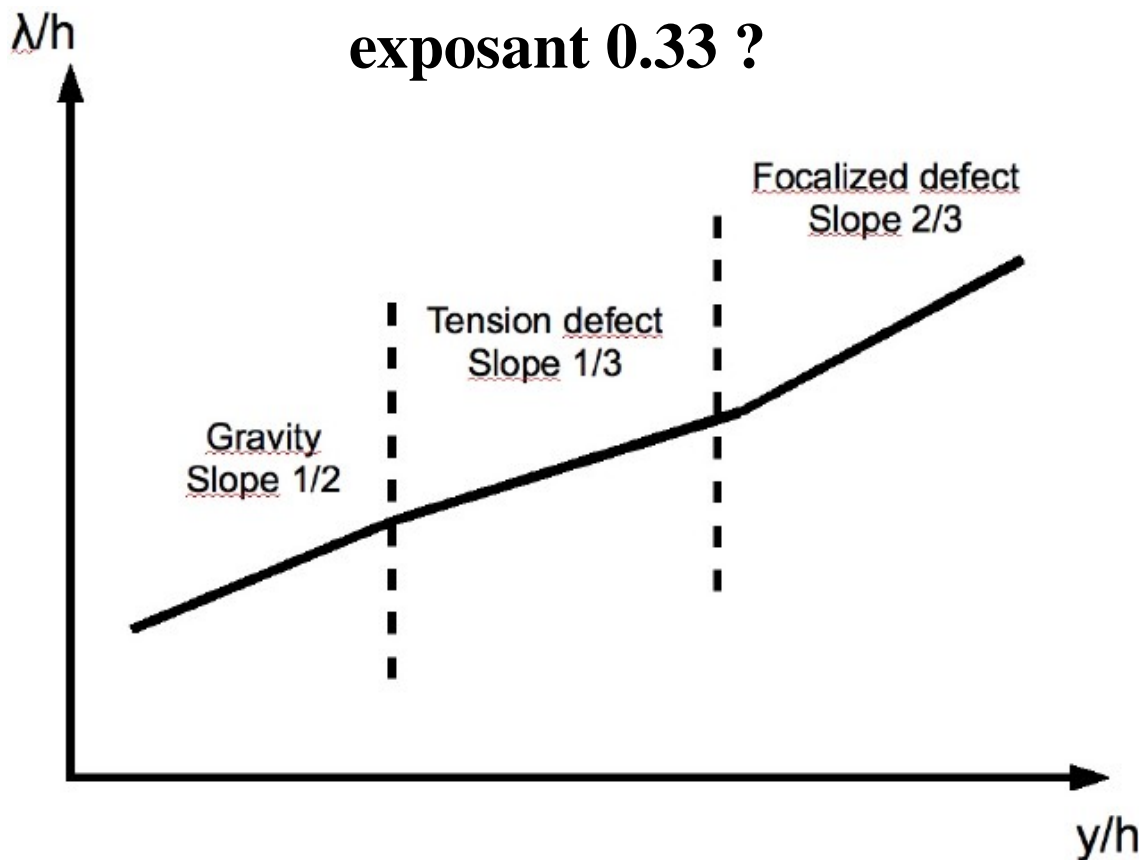
Gravité : exposant 1/2

~~Défauts doux~~ : exposant 1/3

Défauts focalisés sous tension :

Défauts focalisés : exposant 3/5

exposant 0.33 ?



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