

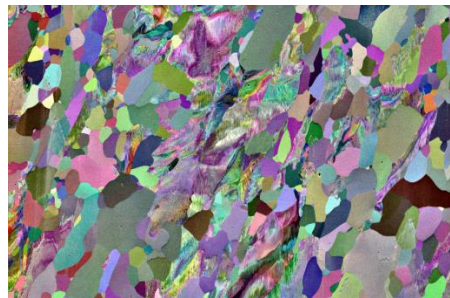


Ecole thématique CNRS Recrystallization and Grain Growth

Fréjus, France

September 24th-28th, 2018

<https://gdr-rex2018.sciencesconf.org/resource/page/id/1>



Scope

Recrystallization and grain growth are phenomena of outmost importance in many fields, and basically concern all kinds of crystalline materials (metals, ice, rocks...).

This summerschool is the third edition organized in the frame of the on-going French “Groupement de Recherche CNRS” on Recrystallization.

The aim is to provide a wide overview of:

- the state-of-the-art of recrystallization mechanisms in polycrystalline materials in various fields (geosciences, glaciology, metallurgy)
- the experimental tools and approaches currently used to assess recrystallization mechanisms
- the modelling approaches developed to simulate recrystallization and grain growth phenomena, with the aim of predicting how microstructure is evolving and the consequences on the material behaviour

Maximum number of attendees : 40 (researchers, students, academic and industrial engineers)

Prerequisite : Masters degree and knowledge in material sciences

Language : Courses will be provided in English.

Speakers :: M. Bernacki, C. Le Bourlot, R. Jacolot, R. Logé, D. Mainprice, M. Montagnat, D. Piot, A. Tommasi.

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Program

Monday	
13:00 – 13:10	Welcoming and introduction– <i>N. Bozzolo</i>
13:10 - 14h40	Recrystallization mechanisms <i>M. Montagnat, R.E. Logé</i>
	Coffee break
15:00 – 16:30	Recrystallization and mechanical properties <i>R.E. Logé, M. Montagnat</i>
	Coffee break
17h00 – 18:00	Organisation of the workshop groups / attendee presentations / poster exhibition
Tuesday	
08:30 – 10:00	Characterization tools for recrystallization mechanisms <i>C. Le Burlot, D. Mainprice</i>
	Coffee break
10:30 – 12:00 (2 groups)	2D characterization with EBSD and image analyses (gr. 1) – D. Mainprice 3D characterization with X-Ray diffraction (gr. 2) – C. Le Burlot
	Lunch
13:30 – 15:00 (2 groups)	2D characterization with EBSD and image analyses (gr. 2) – D. Mainprice 3D characterization with X-Ray diffraction (gr. 1) – C. Le Burlot
	Coffee break
15:30 – 17:00 (2 groups)	2D characterization with EBSD and image analyses (gr. 3) – D. Mainprice 3D characterization with X-Ray diffraction (gr. 4) – C. Le Burlot
17:15 – 18:30	Short presentations by the attendees
Wednesday	
08:30 – 10:00 (2 groups)	2D characterization with EBSD and image analyses (gr. 4) – D. Mainprice 3D characterization with X-Ray diffraction (gr. 3) – C. Le Burlot
	Coffee break
10:30 – 12:00	Modeling of recrystallization and grain growth mechanisms <i>M. Bernacki</i>
	Lunch
14:00 – 15:30	Role of recrystallization in the performance of aluminium alloys in aeronautics industry <i>N. Bayona (Constellium)</i>
	Coffee break
16:00 – 17:30 (2 groups)	Full field modelling of recrystallization and grain growth (gr. 1) – M. Bernacki Mean field modelling of recrystallization and grain growth (gr. 2) – D. Piot
17:30 – 18:30	Poster exhibition

Thursday	
08:30 – 10:00 (2 groups)	Full field modelling of recrystallization and grain growth (gr. 2) – M. Bernacki Mean field modelling of recrystallization and grain growth (gr. 1) – D. Piot
	Coffee break
10:30 – 12:00 (2 groups)	Full field modelling of recrystallization and grain growth (gr. 3) – M. Bernacki Mean field modelling of recrystallization and grain growth (gr. 4) – D. Piot
	Lunch
13:30 – 15:00 (2 groups)	Full field modelling of recrystallization and grain growth (gr. 4) – M. Bernacki Mean field modelling of recrystallization and grain growth (gr. 3) – D. Piot
	Coffee break
15:30 – 17:00	Recrystallization in natural conditions: rocks <i>A. Tommasi</i>
17:15 – 18:30	Poster exhibition
Friday	
08:30 – 10:00	Strategies and issues in metallurgical industry <i>R. Jacolot (Arcelor Mittal)</i>
	Coffee break
10:30 – 12:00	Recrystallization in natural conditions: ice <i>M. Montagnat</i>
12h00 – 12h30	Conclusions and feedback from the attendees
	Lunch
	Departure