

	X-Ray Tomography and Mathematical Engineering	Crystallography and X-Ray Diffraction Techniques
<b>Day1, Monday 18.11.19</b>		
8h00 - 8h30	Welcome words / Organising Committee	
8h30 - 10h30	Image correlation methods: introduction / François HILD, Alain FANGET	Reminder about the intensity from a small crystal, powder samples, texture, microstrains / José Manuel MERINO
10h30 - 11h00	Coffee break / Organising Committee	
11h00 - 13h00	Image correlation methods: imaging devices / François HILD, Alain FANGET	Indexing of a powder diffraction pattern, quantitative analysis / José Manuel MERINO
13h00 - 14h00	Lunch / Organising Committee	
14h00 - 16h00	Image correlation methods: autocorrelation / François HILD, Alain FANGET	Samples preparation, measurements of diffraction patterns / Josué FRIEDRICH
16h00 - 16h30	Coffee break / Organising Committee	
16h30 - 17h30	Mechanical tests and Measurements / Alain FANGET	Samples preparation, measurements of diffraction patterns / Josué FRIEDRICH
17h30 - 18h00	International Institutions & opportunities (IMSP, CEA-SMA) / Organising committee	
<b>Day2, Tuesday 19.11.19</b>		
8h30 - 10h30	Image correlation methods: metrology / François HILD, Alain FANGET	Rietveld refinement (theory) / José Manuel MERINO
10h30 - 11h00	Coffee break / Organising Committee	
11h00 - 13h00	Image correlation methods: kinematics of deformable media / François HILD, Alain FANGET	Rietveld refinement (examples) / José Manuel MERINO
13h00 - 14h00	Lunch / Organising Committee	
14h 00 - 16h00	Image correlation methods: kinematics of deformable media / François HILD, Alain FANGET	Instrument resolution, phase identification, crystallite size / Josué FRIEDRICH
16h00 - 16h30	Coffee break / Organising Committee	
16h30 - 17h30	Mechanical tests and Measurements / Alain FANGET	Instrument resolution, phase identification, crystallite size / Josué FRIEDRICH
17h30 - 18h00	International Institutions & opportunities (LAAAMP, AfLS) / Thierry D'ALMEIDA	
<b>Day3, Wenesday 20.11.19</b>		
8h30 - 10h30	Image correlation methods: local approaches / François HILD, Alain FANGET	Rietveld refinement (Fullprof or Panalytical software) / Josué FRIEDRICH
10h30 - 11h00	Coffee break / Organising Committee	
11h00 - 13h00	Image correlation methods: local approaches / François HILD, Alain FANGET	Tutorial on ICDD / Thomas BLANTON
13h00 - 14h00	Lunch / Organising Committee	
14h 00 - 16h00	Image correlation methods: global approaches / François HILD, Alain FANGET	Tutorial on ICDD / Thomas BLANTON
16h00 - 16h30	Coffee break / Organising Committee	
16h30 - 17h30	Mechanical tests and Measurements / Alain FANGET	Rietveld refinement (Fullprof or Panalytical software) / Josué FRIEDRICH
17h30 - 18h00	International Institutions & opportunities (X-TechLab, AfCA) / Marielle AGBAHOUMBATA	
<b>Day4, Thursday 21.11.19</b>		
8h30 - 10h30	Images correlation methods: global approaches / François HILD, Alain FANGET	Tutorial on ICDD / Thomas BLANTON
10h30 - 11h00	Coffee break / Organising Committee	
11h00 - 13h00	Images correlation Methods: Case studies / François HILD, Alain FANGET	Tutorial on ICDD / Thomas BLANTON
13h00 - 14h00	Lunch / Organising Committee	
14h 00 - 16h00	Images correlation Methods: Case studies & conclusion / François HILD, Alain FANGET	Practice in Powder Diffraction / All students
16h00 - 16h30	Coffee break / Organising Committee	
16h30 - 18h00	Group discussions and/or individual work / All students	
<b>Day5, Friday 22.11.19</b>		
8h30 - 10h30	Training in Project Management / Agence de Développement de Sèmè City	
10h30 - 11h00	Coffee break / Organising Committee	
11h00 - 13h00	Training in Project Management / Agence de Développement de Sèmè City	
13h00 - 14h00	Lunch / Organising Committee	
14h 00 - 16h00	Training in Project Management / Agence de Développement de Sèmè City	
16h00 - 16h30	Coffee break / Organising Committee	

16h30 - 18h00	Coktail & Young Scientits and Managers mixer / <b>All students &amp; Managers</b>	
<b>Day6, Saturday 23.11.19</b>		
8h30 - 10h30	X-Ray Diffraction: A review of diffraction techniques and main applications / <b>Thierry D'ALMEIDA</b>	Hands-on practice on the X-Ray powder Diffractometer: students's samples characterisation / <b>Organising Committee</b>
10h30 - 11h00	Coffee break / <b>Organising Committee</b>	
11h00 - 13h00	X-Ray Diffraction: A review of diffraction techniques and main applications / <b>Thierry D'ALMEIDA</b>	Hands-on practice on the X-Ray powder Diffractometer: students's samples characterisation / <b>Organising Committee</b>
13h00 - 14h00	Lunch / <b>Organising Committee</b>	
14h00 - 16h00	Absorption and Emission Spectroscopy (XANES, EXAFS, XES, XPS) & X-ray Imaging/ <b>Thierry D'ALMEIDA</b>	
<b>Day7, Sunday 24.11.19: Relaxation / No class</b>		
<b>Day8, Monday 25.11.19</b>		
8h30 - 10h30	Introduction to mathematical morphology and image analysis / <b>Dominique JEULIN</b>	Crystal Symetry / <b>Michele ZEMA</b>
10h30 - 11h00	Coffee break / <b>Organising Committee</b>	
11h00 - 13h00	Introduction to mathematical morphology and image analysis / <b>Dominique JEULIN</b>	Crystal Symetry / <b>Michele ZEMA</b>
13h00 - 14h00	Lunch / <b>Organising Committee</b>	
14h00 - 16h00	Morphological measurements / <b>Dominique JEULIN</b>	Tutorial on CSD / <b>Suzanna WARD</b>
16h00 - 16h30	Coffee break / <b>Organising Committee</b>	
16h30 - 18h30	Heat conduction, Transfer & Thermal rays / <b>Thierry DUVAUT</b>	Tutorial on CSD / <b>Suzanna WARD</b>
<b>Day9, Tuesday 26.11.2019</b>		
8h30 - 10h30	Morphological measurements / <b>Dominique JEULIN</b>	Crystal Symetry / <b>Michele ZEMA</b>
10h30 - 11h00	Coffee break / <b>Organising Committee</b>	
11h00 - 13h00	Introduction to random closed sets and to random functions / <b>Dominique JEULIN</b>	Crystal Symetry / <b>Michele ZEMA</b>
13h00 - 14h00	Lunch / <b>Organising Committee</b>	
14h00 - 16h00	Basic morphological models of random sets and of random functions / <b>Dominique JEULIN</b>	Tutorial on CSD / <b>Suzanna WARD</b>
16h00 - 16h30	Coffee break / <b>Organising Committee</b>	
16h30 - 18h30	Thermal properties measurements, Pyrometry & Non Destructive Test / <b>Thierry DUVAUT</b>	Tutorial on CSD / <b>Suzanna WARD</b>
<b>Day10, Wednesday 27.11.2019</b>		
8h30 - 10h30	Basic morphological models of random sets and of random functions / <b>Dominique JEULIN</b>	Understanding International Tables for Crystallography / <b>Michele ZEMA</b>
10h30 - 11h00	Coffee break / <b>Organising Committee</b>	
11h00 - 13h00	Basic morphological models of random sets and of random functions / <b>Dominique JEULIN</b>	Understanding International Tables for Crystallography & presentation of IUCr / <b>Michele ZEMA</b>
13h00 - 14h00	Lunch / <b>Organising Committee</b>	
14h00 - 16h00	Basic morphological models of random sets and of random functions / <b>Dominique JEULIN</b>	Cystal growth techniques / <b>Phylip Oladijo</b>
16h00 - 16h30	Coffee break / <b>Organising Committee</b>	
16h30 - 18h30	Sustainable Construction – Energetic & Analytical and numerical modeling (COMSOL, FLUENT, PYTHON,...) / <b>Thierry DUVAUT</b>	Crystal growth techniques / <b>Phylip Oladijo</b>
<b>Day11, Thursday 28.11.2019</b>		
8h30 - 10h30	models of random sets and of random functions	Crystal defects & twins / <b>Phylip Oladijo</b>
10h30 - 11h00	Coffee break / <b>Organising Committee</b>	
11h00 - 13h00	Probabilistic models of fracture / <b>Dominique JEULIN</b>	Crystal defects & twins / <b>Phylip Oladijo</b>
13h00 - 14h00	Lunch / <b>Organising Committee</b>	
14h00 - 16h00	Probabilistic models of fracture / <b>Dominique JEULIN</b>	Hands-on practice on the X-Ray powder Diffractometer: students's samples characterisation / <b>Organising Committee</b>
16h00 - 16h30	Coffee break / <b>Organising Committee</b>	
16h30 - 18h30	Segmentation of a granular material / <b>Alain FANGET</b>	Hands-on practice on the X-Ray powder Diffractometer: students's samples characterisation / <b>Organising Committee</b>
18h30 - 19h30	Closing Ceremony / <b>Organising Committee</b>	