



IAMG Student Chapter Annual Report



IAMG Student Chapter Annual Report

Year:	2020 – 2021
Chapter:	IAMG Student Chapter Nancy (France)
Web-site (url): hosted by last update	http://www.ring-team.org/home/iamg-student-chapter
Academic Advisor(s): 1 2	CAUMON Guillaume – guillaume.caumon@univ-lorraine.fr
President (name, email):	LEGENTIL Capucine – capucine.legentil@univ-lorraine.fr
Secretary: (name, email)	RENAT Zoé – zoe.renat@univ-lorraine.fr
Treasurer (name, email):	BAVILLE Paul – paul.baville@univ-lorraine.fr SCARPA Enrico – enrico.scarpa@univ-lorraine.fr



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Members:	Name	Last Degree	Research Project	Department
	GOUACHE Corentin	PhD	PhD: Multi-scale approach of the seismic waves propagation for earthquakes stochastic model development in France.	Université de Lorraine
	SCHUH-SENLIS Melchior	PhD	PhD: Reduction of structural uncertainties associated with faults by waveform inversion.	Université de Lorraine
	BAVILLE Paul	MSc	PhD: Reservoir geomodelling based using stratigraphic stochastic multi-well correlations.	Université de Lorraine
	FRANTZ Yves	MSc	PhD: Stochastic simulation of karstic networks.	Université de Lorraine
	LEGENTIL Capucine	MSc	PhD: Local geomodel updating geometry and topology.	Université de Lorraine
	RENAT Zoé	MSc	PhD: Microseisms characterization by time reversal.	Université de Lorraine
	SCARPA Enrico	MSc	PhD: Analysis and reproduction of hydrodynamic connectivity in chennalized sedimentary environments.	Université de Lorraine
	TATY-MOUKATI Fabrice	MSc	PhD: Graph-based Stochastic seismic structural interpretation of geological faults.	Université de Lorraine
	HERRERO Julien	BSc	MSc: Model updating while drilling.	Université de Lorraine
	LABOURG Priscillia	BSc	MSc: Insertion of fractures in 2D meshed geomodel.	Université de Lorraine
PERRIER Yassine	BSc	MSc: Detection of stratigraphic sequences from well log data using continuous & discrete wavelet transforms.	Université de Lorraine	
RAPENNE Marius	BSc	MSc: Quadrangular adaptative meshing for wave simulation in homogenized media.	Université de Lorraine	



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Scientific Activities during reporting year:	Date	Topic	Speaker/Occasion
	Specific papers written by the student chapter members		
	<i>In minor revision</i>	Computer-assisted stochastic multi-well correlation: Sedimentary facies versus well distality.	Baville et al. Manrine and Petroleum Geology (2021)
	May 2021	Analysis and stochastic simulation of geometrical properties of conduits in karstic networks.	Frantz et al., Geomorphology (2021)
	March 2021	Estimation of main shock frequency-magnitude distributions by adapting the inter-event time method for low-to-moderate seismicity areas: application to French mainland	Couache et al., Journal of Seismology (2021)
	<i>Under review</i>	Testing scenarios on geological models: local interface insertion in a 2D mesh and its impact on seismic wave simulation	Legentil <i>et al.</i> , Computers & Geosciences (2021)
	Seminars organized by the student chapter members and given by the student chapter members		
	October 15 th 2020	Computer-assisted multi-well correlation: correlation rules based on chronostratigraphy	BAVILLE Paul (Internal seminar)



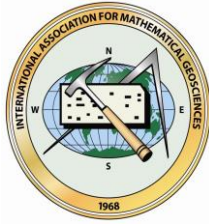
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	November 26 th 2020	Local updating of meshed 2D geomodels for seismic simulation	LEGENTIL Capucine (Internal seminar)
	December 17 th 2020	Structural Interpretation of Sparse Fault Data using Graph Theory and Geological Rules	TATY-MOUKATI Fabrice (Internal seminar)
	January 14 th 2021	IAMG Student Chapter Presentation	LEGENTIL Capucine (Internal seminar)
	January 28 th 2021	Characterization of the karstic network in an experimental site at Poitiers (France) with multiple-point geostatistics	SCARPA Enrico (Internal seminar)
	April 1 st 2021	Discussion about the computation of the volume between two parametric triangle surfaces	BAVILLE Paul (Internal seminar)
	May 27 th 2021	Interpretation of the focal spot obtained with time reversal.	RENAT Zoé (Internal seminar)
Seminars organized by the student chapter members and given by external presenters			
	October 22 nd 2020	Multi-scale structural analysis: Used data compilation	Lionel Bertrand & Martin Stanek (External seminar)
	November 12 th 2020	Macros SKUA – Simple examples applied to geostatistics	CAUMON Guillaume (Internal seminar)



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	November 19 th 2020	Lambda functions in Python and C++ .	ANTOINE Christophe (Internal seminar)
	December 3 rd and 10 th 2020	Fractures Networks: Second-order Characterization from Outcrops (Part 1 & 2)	BONNEAU Francois (Internal seminar)
	January 7 th 2021	Phase Field Modeling of Fracture in Geomaterials by considering the Hydrothermal Coupling	ZHANG Xiaodong (Internal seminar)
	January 21 st 2021	Multi-Scale experimental characterization of HM damage n rocks	BGEWADE Fabrice (Internal seminar)
	February 4 th 2021	Multi-scale hydro-mechanical modeling of coalbed methane recovery	MOSTAFA Ahmad (Internal seminar)
	February 11 th 2021	Using magnetostratigraphy data in assisted well correlation to reduce uncertainty: Some thoughts and first results	CAUMON Guillaume (Internal seminar)
	February 18 st 2021	Effective Elastic Properties of Heterogeneous Media with Concave Pores and Transversely Isotropic Matrix	DU Kou (Internal seminar)



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	February 25 th 2021	Investigating Immersed Boundary Methods for Unstructured mesh Reservoir Upscaling	ZAKARI Mustapha (Internal seminar)
	March 18 th 2021	Investigations on DSGSD-phenomena by means of Discrete Element Modelling.	HUBER Marius (Internal seminar)
	April 8 th 2021	Introduction to Google Benchmark	ANTOINE Christophe (Internal seminar)
	April 16 th 2021	Experimental study of gas exchange in the coal in the context of CO ₂ injection and enhanced recovery of CH ₄	AMOIH Franck (internal seminar)
	April 29 th 2021	Multiphase modeling in fractures using a pore network model	GOUY Augustin (Internal seminar)
	May 11 th 2021	Coupling Surface Evolution and Mantle Dynamics: two examples of the interplay of Tectonics, Eustasy and Surface Processes	MALLARD Calire (External Seminar)
	May 20 th 2021	Reactive transport modeling applied to lateritic nickel deposits in New Caledonia : Impact of the discrete fractures on nickel mineralization	FAVIER Sylvain (Internal seminar)
	June 10 th 2021	Second-Order Characterization of Fracture networks from Outcrops: Latest results	BONNEAU Francois (Internal seminar)



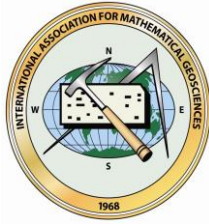
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June 24 th 2021	Evaluate the impact of fluctuations in the level of water table on the multi-phase mobilization of oil contaminants (LNAPLs) in soils.	CAVELAN Amélie (Internal seminar)	
June 30 th 2021	3D numerical modeling of a fracture network in argillites.	CLAUSOLLES Nicolas (Internal seminar)	
July 8 th 2021	Mechanical modeling of rock salt: application to salt cavities	COARITA-TINTAYA Ever-Dennys (Internal seminar)	
National & international conference posters presented by the student chapter members			
National & international conference presentation given by the student chapter members			
September 7 th 2020	Computer-assisted multi-well stochastic correlations: Chronostratigraphic surface simulation using Bézier cubic interpolations.	Baville et al., RING Meeting (2020)	
September 7 th 2020	Towards the use of creeping flow restoration on more realistic geomodels.	Schuh-Senlis et al., RING Meeting (2020)	



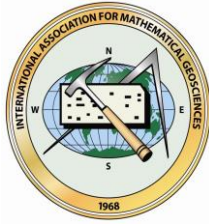
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	September 7 th 2020	How to preserve the architectural elements of channelized systems in flow simulation using conventional corner-point grids.	Scarpa et al., RING Meeting (2020)
	September 7 th 2020	Local updating of meshed 2D geomodels for seismic simulation	Legentil et al., RING Meeting (2020)
	September 7 th 2020	Stochastic simulations of discrete karstic networks.	Frantz et al., RING Meeting (2020)
	September 7 th 2020	Enriching the RESORCE database by synthetic waveforms to weight Ground-Motion Prediction Equations for seismic hazard assessment.	Gouache et al., RING Meeting (2020)
	September 7 th 2020	Synthetic seismic source location using a 2D time reversal implementation.	Renat et al., RING Meeting (2020)
	December 2020	Structural Restoration of Geological Structures with Viscous Stokes Flow – Principles and First Results	Schuh-Senlis et al., 82nd EAGE Conference and Exhibition (2020)
	March 26 th 2021	Testing scenarios on geological models: local interface insertion in a 2D mesh and its impact on seismic wave simulation.	Legentil Capucine (2021) Doctorate Scholl Seminar 2021



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	March 26 th 2021	Time reversal method for seismic source location	Renat Zoé (2021) Doctorate Scholl Seminar 2021																		
	June 21 st – 23 rd 2021	Testing scenarios on geological models: local interface insertion in a 2D mesh and its impact on seismic wave simulation.	Legentil at al., ADMOS (2021)																		
Social Activities during reporting year:	/																				
Budget for reporting year:	<table border="1" style="width: 100%; border-collapse: collapse; margin-left: 20px;"> <thead> <tr> <th style="width: 30%;">Item</th> <th style="width: 30%;">Budgeted</th> <th style="width: 30%;">Expenditure</th> </tr> </thead> <tbody> <tr> <td>Seminars:</td> <td style="text-align: right;">0 €</td> <td style="text-align: right;">0 €</td> </tr> <tr> <td>Invited Speakers:</td> <td style="text-align: right;">500 €</td> <td style="text-align: right;">0 €</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td>Excursions:</td> <td style="text-align: right;">1.000 €</td> <td style="text-align: right;">0 €</td> </tr> <tr> <td>Other:</td> <td style="text-align: right;">0 €</td> <td style="text-align: right;">0 €</td> </tr> </tbody> </table>			Item	Budgeted	Expenditure	Seminars:	0 €	0 €	Invited Speakers:	500 €	0 €				Excursions:	1.000 €	0 €	Other:	0 €	0 €
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Other:	0 €	0 €																			
Funding requested:	<p>This year, we did not use any money for the organization of seminars with external speakers because of the pandemic situation, several webinars have been organized with external speakers. Next year, we will use the remaining money to invite people especially for the seminars.</p> <p>After last year's trip, we are thinking of organizing a new one. This requires money, time and favorable health situation, so we will certainly plan it for 2022. In prevision to the organization of this excursion, we would like to request 1000 €, to have a basis for our planning.</p>																				



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Proposed budget:	Item	Budgeted
	Seminars:	0 €
Invited Speakers:	500 €	
Excursions:	2.000 €	
Other:	0 €	
Planned activities:	1) Organization of internal seminars each week from September 2021 to July 2022. 2) Maintenance of the Website. 3) Organization of a field trip in 2022.	