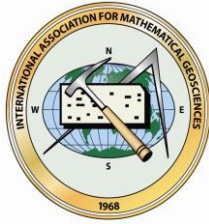




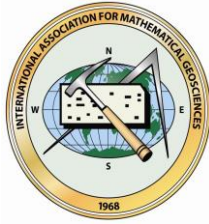
## IAMG Student Chapter Annual Report

<b>Year:</b>	2019 – 2020
<b>Chapter:</b>	IAMG Student Chapter Nancy (France)
<b>Web-site (url): hosted by last update</b>	<a href="http://www.ring-team.org/home/iamg-student-chapter">http://www.ring-team.org/home/iamg-student-chapter</a> August 2020
<b>Academic Advisor(s): 1 2</b>	CAUMON Guillaume <a href="mailto:guillaume.caumon@univ-lorraine.fr">guillaume.caumon@univ-lorraine.fr</a>
<b>President (name, email):</b>	LEGENTIL Capucine <a href="mailto:capucine.legentil@univ-lorraine.fr">capucine.legentil@univ-lorraine.fr</a>
<b>Secretary: (name, email)</b>	RENAT Zoe <a href="mailto:zoe.renat@univ-lorraine.fr">zoe.renat@univ-lorraine.fr</a>
<b>Treasurer (name, email):</b>	BAVILLE Paul <a href="mailto:paul.baville@univ-lorraine.fr">paul.baville@univ-lorraine.fr</a>



## IAMG Student Chapter Annual Report

Members	Name	Last Degree	Research Project	Department
	RAGUENEL Margaux	Phd	Defended in September 2019 Flow and heat transfers simulations in fractured reservoirs.	Université de Lorraine
	CLAUSOLLES Nicolas	Phd	Defended in March 2020. Seismic interpretation and modeling of salt geobodies.	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
	GOUACHE Corentin	MSc	PhD: Multi-scale approach of the seismic waves propagation for earthquakes stochastic model development in France.	Université de Lorraine
	LEGENTIL Capucine	MSc	PhD: Local geomodel updating: geometry and topology.	Université de Lorraine
	RENAT Zoe	MSc	PhD: Microseisms characterization by time reversal.	Université de Lorraine
	SCHUH-SENLIS Melchior	MSc	PhD: ALE methods for the simulation of faults, salt structures and the restoration of geological models	Université de Lorraine
	ELIAS Justine	BSc	Msc: Avulsion in channel retro-migration.	Université de Lorraine
VIVES Morgane	BSc	MSc: Generation of perturbed structural models for dehomogenizing 3D FWI models.	Université de Lorraine	



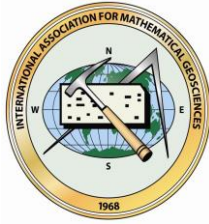
## IAMG Student Chapter Annual Report

Scientific Activities during reporting year:	Date	Topic	Speaker/Occasion
<b>Specific papers written by the student chapter members</b>			
	September 17 <sup>th</sup> 2019	Numerical modeling of the geothermal hydrology of the volcanic island of Basse-Terre, Guadeloupe.	Ragueneil et al., (2019) <b>Geothermal Energy</b>
	September 20 <sup>th</sup> 2019	Generating variable shapes of salt geobodies from seismic images and prior geological knowledge	Clausolles et al., (2019) <b>Interpretation</b>
	<i>Under review</i>	Estimation of main shock frequency – magnitude distributions by adapting the inter event time method for low-to-moderate seismicity areas.	Gouache et al., (2020) <b>Journal of Seismology</b>
	<i>Accepted</i>	Towards the application of Stokes flow equation to structural restoration simulations.	Schuh-Senlis et al., (2020) <b>Solid Earth</b>
	<i>Under review</i>	Analysis and stochastic simulation of geometrical properties of conduits in karstic networks.	Frantz et al., (2020) <b>Geomorphology</b>
<b>Seminars organized by the student chapter members and given by the student chapter members</b>			
	October 8 <sup>th</sup> 2019	Stochastic generation of seismic catalogs on French mainland.	GOUACHE Corentin (Internal seminar)
	October 17 <sup>th</sup> 2019	Seismic interpretation of salt geobodies.	CLAUSOLLES Nicolas (Internal seminar)
	November 21 <sup>st</sup> 2019	Multi-well correlation based on facies interpretation and time surface geometry	BAVILLE Paul (Internal seminar)
	December 13 <sup>th</sup> 2019	Towards the application of Stokes' flow equations to structural restoration simulations .	SCHUH-SENILS Melchior (Internal seminar)



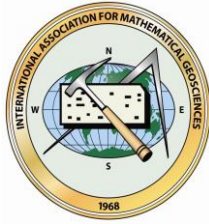
## IAMG Student Chapter Annual Report

January 23 <sup>rd</sup> 2020	Introduction to the IAMG and its local Student Chapter.	LEGENTIL Capucine (Internal seminar)
February 13 <sup>th</sup> 2020	Karstic network skeleton simulation.	FRANTZ Yves (Internal seminar)
February 27 <sup>th</sup> 2020	Time Reversal for microseismic event location (bibliographic review).	RENAT Zoe (Internal seminar)
March 26 <sup>th</sup> 2020	Adapted scheme to estimate frequency – magnitude distribution for low-to-moderate seismicity area	GOUACHE Corentin (Internal seminar)
June 11 <sup>th</sup> 2020	Local updating of 2D meshed geomodels for seismic simulation : motivation and first results.	LEGENTIL Capucine (Internal seminar)
July 1 <sup>st</sup> 2020	Multi-dimensional interpolator - Bezier & Signed Distance Function	BAVILLE Paul & LEGENTIL Capucine (Internal seminar)
July 9 <sup>th</sup> 2020	Spatial earthquake distribution in Stable Continental Region.	GOUACHE Corentin (Internal seminar)
<b>Seminars organized by the student chapter members and given by external presenters</b>		
September 20 <sup>th</sup> 2019	RING, what is it? Advices for the future.	COLLON Pauline (Internal seminar)
November 28 <sup>th</sup> 2019	Influence of density contrast on dissolution in porous media.	AHOULOU Assohoun Wilfried (Internal seminar)
January 16 <sup>th</sup> 2020	Mechanical and hydraulic properties of damaged salt rock: underground hydrogen storage.	AL SAHYOUNI Farah (Internal seminar)
January 30 <sup>th</sup> 2020	Introduction to RINGLab.	BONNEAU François (Internal seminar)



## IAMG Student Chapter Annual Report

	February 2 <sup>nd</sup> 2020	Micromechanical Modeling of Geomaterials by Considering the Microstructural Anisotropy.	DU Kou (Internal seminar)
	February 19 <sup>st</sup> 2020	Unconformity-related uranium deposits of the Athabasca Basin, Northern Saskatchewan, Canada: insights from Numerical Modeling.	ELDURSI Khalifa (Internal seminar)
	March 12 <sup>th</sup> 2020	On the strength of anisotropic shale rocks.	SCHOLTES Luc (Internal seminar)
	April 4 <sup>th</sup> 2020	Loop progress meeting report.	CAUMON Guillaume (Internal seminar)
	April 9 <sup>th</sup> 2020	Thoughts about stochastic DFN simulation.	BONNEAU François (Internal seminar)
	April 23 <sup>rd</sup> 2020	Introduction to GitHub Tools.	BONNEAU François (Internal seminar)
	May 6 <sup>th</sup> 2020	A computational physicist's introduction to optimal transport.	LEVY Bruno (External seminar)
	May 14 <sup>th</sup> 2020	3D structural modeling and meshing applied to CO2 geological storage: Example of the HI24L block, Gulf of Mexico.	MAZUYER Antoine (External seminar)
	May 28 <sup>th</sup> 2020	The representation theorem: a theoretical tool for capturing seismic radiation.	CUPILLARD Paul (Internal seminar)
	June 4 <sup>th</sup> 2020	Open Subsurface Data Universe – an emerging standard for geological data storage and sharing.	APEL Marcus (External seminar)
	June 18 <sup>th</sup> 2020	A very brief bibliographic review of machine learning for structural interpretation of seismic images.	CAUMON Guillaume (Internal seminar)



## IAMG Student Chapter Annual Report

	July 29 <sup>th</sup> 2020	Homogenization in fractured medium.	CAUMON Guillaume (Internal seminar)
<b>National &amp; international conference posters presented by the student chapter members</b>			
	September 10 <sup>th</sup> 2019	Seismic image segmentation for detection of salt geobodies using multi-scale attributes and unsupervised classifier.	Legentil et al., (2019) <b>RING Meeting</b>
	September 24 <sup>th</sup> 2019	Calibration des lois d'atténuation par simulation de propagation d'ondes sismiques.	Gouache et al., (2019) <b>10ème colloque AFPS</b>
	February 12 <sup>th</sup> 2020	Computer assisted well correlation from facies and distality interpretations	Baville Paul (2020) <b>Doctorate School Seminar 2020</b>
<b>National &amp; international conference presentation given by the student chapter members</b>			
	September 10 <sup>th</sup> 2019	Stochastic simulations of conduits dimensions inside karstic networks.	Frantz et al., (2019) <b>RING Meeting</b>
	September 10 <sup>th</sup> 2019	Stochastic well correlation based on facies and sequence interpretations using the hierarchical algorithm WeCo.	Baville et al., (2019) <b>RING Meeting</b>
	September 10 <sup>th</sup> 2019	Numerical Modeling of the Geothermal Hydrology of the Volcanic Island of Basse-Terre, Guadeloupe.	Raguanel et al., (2019) <b>RING Meeting</b>
	September 10 <sup>th</sup> 2019	Towards the application of Stokes' viscous flow equations to structural restoration simulations.	Schuh-Senlis et al., (2019) <b>RING Meeting</b>
	September 10 <sup>th</sup> 2019	Stochastic estimation of French annual mainshock frequencies.	Gouache et al., (2019) <b>RING Meeting</b>
	September 10 <sup>th</sup> 2019	Stochastic salt modeling for characterizing seismic imaging uncertainties.	Clausolles et al., (2019) <b>RING Meeting</b>



## IAMG Student Chapter Annual Report

	September 24 <sup>th</sup> 2019	Génération stochastique de catalogues sismiques pour le territoire français	Gouache et al., (2019) <b>10ème colloque AFPS</b>																		
	June 18 <sup>th</sup> 2020	L'estimation de l'aléa sismique en France.	Gouache et al., (2020) <b>11ème Journée CCR CAT Live 2020</b>																		
	May 4 <sup>th</sup> 2020	Stochastic generator of earthquakes in French mainland.	Gouache et al., (2020) <b>EGU General Assembly 2020</b>																		
	September 29 <sup>th</sup> 2020	Assisted chronostratigraphic multi-well correlation using the dynamic time warping algorithm	Baville et al., (2020) <b>AAPG ACE 2020</b>																		
	Postponed in December 2020	Structural Restoration of Geological Structures with Viscous Stokes Flow - Principle and First Results	Schuh-Senlis et al., (2020) <b>82nd EAGE Conference and Exhibition</b>																		
<b>Budget for reporting year:</b>	<table border="1"> <thead> <tr> <th>Item</th> <th>Budgeted</th> <th>Expenditure</th> </tr> </thead> <tbody> <tr> <td>Seminars:</td> <td>0€</td> <td>0€</td> </tr> <tr> <td>Invited Speakers:</td> <td>500 €</td> <td>0€</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td>Excursions:</td> <td>1000€</td> <td>1736€</td> </tr> <tr> <td>Other:</td> <td>0€</td> <td>0€</td> </tr> </tbody> </table>			Item	Budgeted	Expenditure	Seminars:	0€	0€	Invited Speakers:	500 €	0€				Excursions:	1000€	1736€	Other:	0€	0€
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Other:	0€	0€																			

<b>Funding requested:</b>	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.
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## IAMG Student Chapter Annual Report

	<p>After last year's trip, we are thinking of organizing a new one. This requires money and time, so we will certainly plan it for the end of 2021 or the beginning of 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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<b>Proposed budget:</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Item</th> <th style="width: 35%;">Budgeted</th> <th style="width: 35%;">Expenditure</th> </tr> </thead> <tbody> <tr> <td>Seminars:</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> </tr> <tr> <td>Invited Speakers:</td> <td style="text-align: center;">500 €</td> <td style="text-align: center;">0</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td>Excursions:</td> <td style="text-align: center;">1000 €</td> <td style="text-align: center;">0</td> </tr> <tr> <td>Other:</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> </tr> </tbody> </table>			Item	Budgeted	Expenditure	Seminars:	0	0	Invited Speakers:	500 €	0				Excursions:	1000 €	0	Other:	0	0
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	Excursions:	1000 €	0																		
Other:	0	0																			

<b>Planned activities:</b>	<ol style="list-style-type: none"> <li>1) Organization of internal seminars each week from September 2020 to July 2021.</li> <li>2) Maintenance of the Website.</li> <li>3) Organization of a field trip between June 2021 and March 2022.</li> </ol>
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