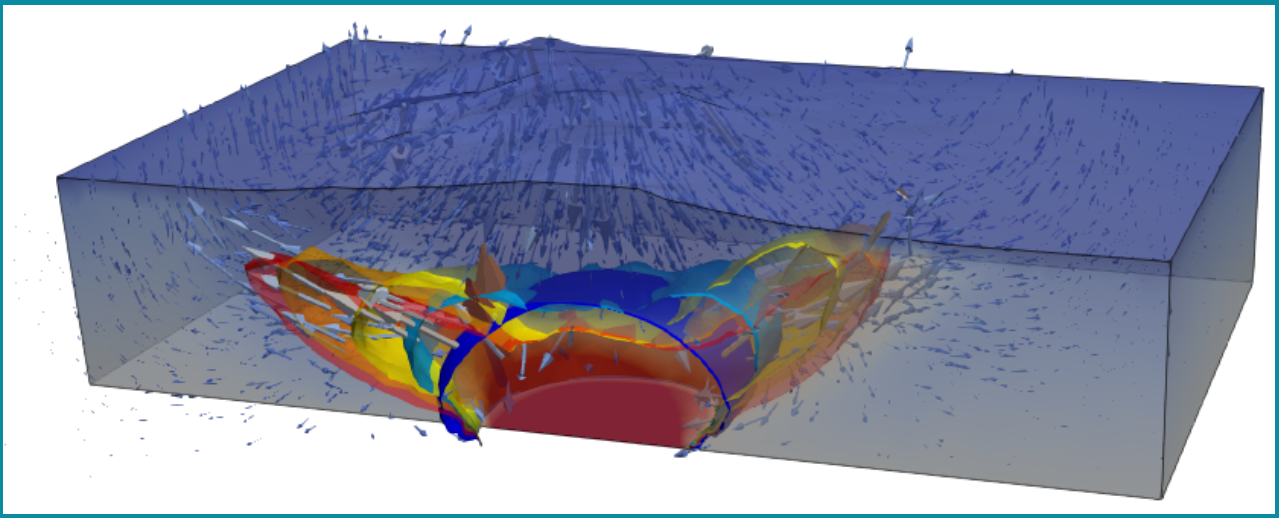
RING

30th Anniversary

1989 - 2019



Meeting 2019

SCHEDULE

September 10 - 13

UNIVERSITÉ DE LORRAINE

ÉCOLE NATIONALE SUPÉRIEURE GÉOLOGIE Nancy

geoRessources

cnrs

A.S.G.A.

Nancy School of Geology (ENSG), Vandoeuvre-lès-Nancy, France

www.ring-team.org

GENERAL AGENDA

10

CONFERENCE
09:15 am to 06:00 pm
Amphi G

ICE BREAKER AND POSTER SESSION
06:00 pm to 07:00 pm
ENSG Street

11

CONFERENCE
09:00 am to 05:30 pm
Amphi G

BIRTHDAY GALA
07:30 pm to 11:00 pm
Opéra National de Lorraine

12

TRAINING SESSION
09:00 am to 06:00 pm

EMERSON - H011 / H012
SCHLUMBERGER - F026
RING - G001

STEERING COMMITTEE
02:00 pm to 05:00 pm
INDUSTRIAL SPONSOR ONLY- F029

13

TRAINING SESSION
09:00 am to 05:00 pm

EMERSON - H011 / H012
RING - G001

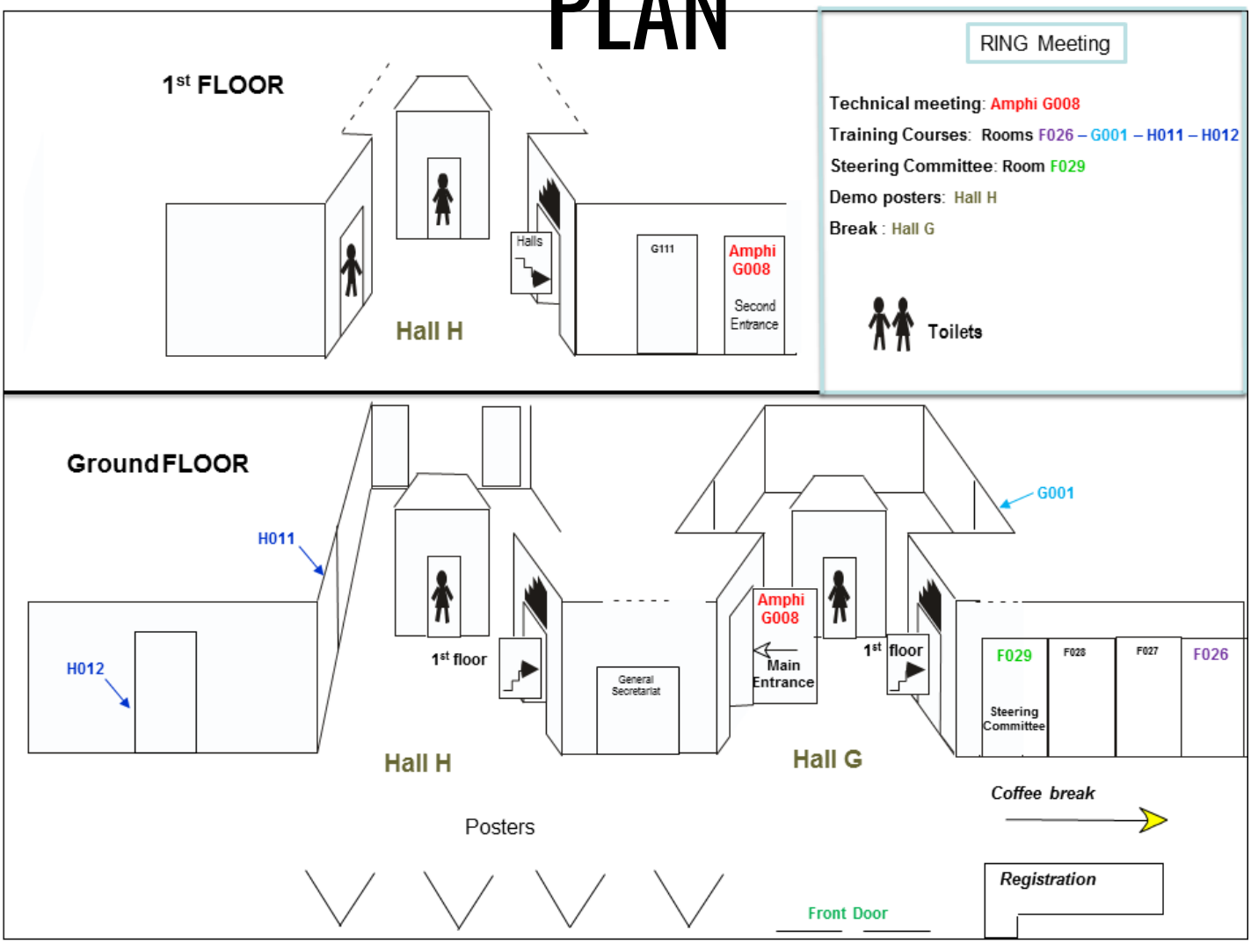
GENERAL INFORMATION

- Please wear your badge at all time (security requirement)
- You can access to the school, gate G with the code : **3019V**
- You will find enclosed an envelope with tickets for lunches at Inist Restaurant : Please give one ticket to the cash desk. This ticket is valid for a meal, a drink and a coffee
- Web access in G007
- Should you want, you may leave your bags in a locked room. Please do not leave any unattended bag in the hall (security requirement)
- Bus tickets can be found at the reception desk
- If you need a taxi or anything else you can ask the reception desk

Wifi : Université de Lorraine
Login : RING Meeting
Password : Welcome2nancy

Computer Room Login
Login : ensg.ring00
Password : ring2019

PLAN



DAILY PLANNER

TUESDAY, SEPTEMBER 10 TH, 2019

AM

TIME	TYPE	ACTIONS
08:30 - 09:15	Break	Welcome and Breakfast (ENSG Street)
09:15 - 09:30	Speech	Welcome to the 2019 RING Meeting - Guillaume Caumon (Amphi G)
09:30 - 11:10	Session	Structural Modeling - Pauline Collon (Amphi G)
09:30 - 09:55		› Implicit structural modeling of geological structures - a benchmark - Guillaume Caumon et al.
09:55 - 10:20		› Integrating fault kinematics into implicit 3D modelling of fault networks - Lachlan Grose et al.
10:20 - 10:45		› Extension of the mathematical GeoChron framework to three-dimensional structural model restoration - Anne-Laure Tertois and Jean-Laurent Mallet
10:45 - 11:10		› Stochastic salt modeling for characterizing seismic imaging uncertainties - Nicolas Clausolles et al.
11:10 - 11:35	Break	Coffee break (ENSG Street)
11:35 - 13:00	Session	Sedimentology & Stratigraphy - Paul Cupillard (Amphi G)
11:35 - 12:00		› Conditioning 3D channel reverse migration to borehole data, Arnaud Cayrol et al.
12:00 - 12:25		› Detection of truncations on satellite images and seismic slices: application to channels and point bars - Leonore Gallot et al.
12:25 - 13:00		› Stochastic well correlation based on facies and sequence interpretations using the hierarchical algorithm WeCo - Paul Baville et al.
13:00 - 14:00	Break	Lunch (INIST Restaurant – Aile COSMOS)

DAILY PLANNER

TUESDAY, SEPTEMBER 10 TH, 2019

PM

14:00 - 15:40	**Session**	**Meshing - Paul Cupillard (Amphi G)**
14:00 - 14:25		› On the visualization of 3D geological models and their uncertainty - Björn Zehner
14:25 - 14:50		› OpenGeode: an industrial open source geosciences meshing framework - Arnaud Botella and Pierre Anquez
14:50 - 15:15		› Refinable-precision in mesh compression for upscaling and upgridding in reservoir simulation with HexaShrink - Lauriane Bouard et al.
15:15 - 15:40		› Geometric model simplification – Implications for wave propagation and DFN multiphase flow - Pierre Anquez et al.
15:40 - 15:55	**Break**	**Coffee break (ENSG Street)**
16:05 - 17:20	**Session**	**Karsts - Guillaume Caumon (Amphi G)**
16:05 - 16:30		› A New Workflow for 3D Geological Modeling of Karstfied Carbonate Petroleum Reservoirs - Mathieu Moriss et al.
16:30 - 16:55		› OM-MADE : an open-source program to simulate one-dimensional solute transport in multiple exchanging conduits and storage zones - Pauline Collon et al.
16:55 - 17:20		› Stochastic simulations of conduits dimensions inside karstic networks - Yves Frantz et al.
17:20 - 18:00	**Session**	**Flash Poster Presentations - Pauline Collon (Amphi G)**
17:20 - 17:23		› A web application to analyze seismic catalog - Celia Louarn et al.
17:23 - 17:26		› Geophysical forward modelling with GECCO tools for heterogeneous lithological associations – the closed Mullikkoräme and Outokumpu sulphide mines in Finland as case studies - Eevaliisa Laine et al.
17:26 - 17:29		› Finite element implementation of second order directional derivatives for regularization of implicit modeling of geological structures - Morgan Thierry-Coudon et al.
17:29 - 17:32		› 3D Geomodeling of the Alces Lake Rare Earth Element Project (Saskatchewan, Canada) - Kateryna Poliakovska et al.
17:35 - 17:38		› Graph-based fault network uncertainty assessment (Athabasca basin, Saskatchewan) - Paul Marchal et al.
17:38 - 17:41		› Geohub: A versioned repository for geodata - Georg Semmler et al.
17:41 - 17:44		› Seismic image segmentation for detection of salt geobodies using multi-scale attributes and unsupervised classifier - Capucine Legentil et al.
17:44 - 17:47		› InvertSeis: Synthetic Seismic Gocad Plugin - Luiz Felipe Oliveira et al.
17:47 - 17:50		› Stochastic Modeling Of Turbidite Bodies: An Application In The APIÚNA TURBÍDITIC COMPLEX - Vanessa Engelke et al.
18:00 - 19:00	**Break**	**Ice Breaker (ENSG Street)**

DAILY PLANNER

WEDNESDAY, SEPTEMBER 11 TH, 2019

AM

TIME	TYPE	ACTIONS
08:30 - 09:00	**Break**	**Breakfast (ENSG Street)**
09:00 – 10 :45	**Session**	**Faults & Fractures - Guillaume Caumon (Amphi G)**
09:00 - 09:25		› ParaFrac : a Gocad plugin for analyzing fracture networks - Soumia Hamlaoui et al.
09:25 - 09:50		› Stochastic estimation of French annual main shock frequencies - Corentin Gouache et al.
09:50 - 10:20		› Investigating Representative Elementary Volume of a fracture network from outcrop data to drive Discrete Fracture Network modeling - Mattia Martinelli et al.
10:20 - 10:45		› A Novel Deep Learning Based Method for Automated Multi-scale Discrete Fracture Network Generation - Rahul Prabhakaran et al.
10:45 - 11:10	**Break**	**Coffee break (ENSG Street)**
11:10 – 13:00	**Session**	**Seismology - Pauline Collon (Amphi G)**
11:10 - 11:35		› Geological and synthetic seismic modeling based on outcrop data: turbidite deposits of La Jardinera, southern region of the Neuquén Basin – Ariane Silveira et al.
11:35 - 12:00		› Inconsistency of Rock physics model predictions and Anisotropic time-lapse tomographic results - Nicolas Mastio et al.
12:00 - 12:25		› Appraising structural interpretations using surface seismic data: where we stand and the road ahead - Modeste Irakarama et al.
12:25 – 12:50		› Downscaling FWI images using the homogenization operator - Paul Cupillard et al.
13:00 - 14:00	**Break**	**Lunch (INIST Restaurant – Aile COSMOS)**

DAILY PLANNER

WEDNESDAY, SEPTEMBER 11 TH, 2019

PM

14:00 – 15:45	Session	Flow - Paul Cupillard (Amphi G)
14:00 - 14:25		› Impact of Geologic Heterogeneity on Multiphase Flow as Simulated with Different Discretisation Schemes and Constitutive Relationships - Stephan Matthai et al.
14:25 - 14:50		› Numerical Modeling of the Geothermal Hydrology of the Volcanic Island of Basse-Terre, Guadeloupe - Margaux Raguenel et al.
14:50 - 15:15		› A simple CVFEM discrete fracture model for unstructured mesh flow-based upscaling - Mustapha Zakari et al.
15:15 - 15:40		› Topological analysis of 3D Discrete Fracture Networks: a graph approach to flow in fractured rocks - Tawfik Rajeh et al.
15:45 - 16:10	Break	Coffee break (ENSG Street)
16:10 - 17:25	Session	Structural Mechanics - Guillaume Caumon (Amphi G)
16:10 - 16:35		› An algorithm for generating mechanically sound sphere packings in structurally complex geological models - Francois Bonneau et al.
16:35 - 17:00		› Understanding the growth and evolution of conjugate fault systems in compressional settings using Distinct Element Method forward Models and natural growth structures - Benjamin Chauvin et al.
17.00 - 17:25		› Towards the application of Stokes' viscous flow equations to structural restoration simulations - Melchior Schuh-Senlis et al.

To celebrate the 2019 RING MEETING and the 30th Anniversary of the RING-GOCAD Consortium, we are pleased to invite you to the dinner at "l'Opéra National de Lorraine".

30th Anniversary
1989 - 2019

Location : Place Stanislas ; 1 Rue Sainte-Catherine, 54000 Nancy

CURRENT MEMBERS OF THE CONSORTIUM

UPDATED LIST - SEPTEMBER 2019

14 COMPANIES

ANDRA, aramco, CCR, Chevron, equinor, ExxonMobil, ifp Energies nouvelles, Paradigm, EMERSON, pdspetrotechnical, PETROBRAS, REPSOL, Schlumberger, TOTAL, wintershall dea

139 UNIVERSITIES

Europe

1. (at) Geological Survey of Austria
2. (at) Montan Universitat Leoben
3. (be) Faculte Polytechnique de Mons
4. (be) Senate Department for the Environment, Transport and Climate Protection
5. (ch) Basel University
6. (ch) Neuchatel University (CHYN)
7. (de) BGR Hannover
8. (de) BSU Geological Survey Hamburg
9. (de) Bayerisches Geologisches Landesamt University
10. (de) Bergakademie Freiberg
11. (de) Bremen University Marum
12. (de) Darmstadt Technische Universität
13. (de) Geologischer Dienst NRW
14. (de) Goettingen University GZG
15. (de) Hamburg University - IFG
16. (de) Helmholtz Zentrum Dresden Rossendorf (HZDR)
17. (de) Hessisches Landesamt für Umwelt und Geologie
18. (de) IFG Hannover University
19. (de) Kiel IFG Geophysik
20. (de) LAGB Sachsen-Anhalt
21. (de) LBEG (NIfB Geological Survey) Hannover
22. (de) LBGR Brandenburg
23. (de) LGB MAINZ - Landesamt fur Geologie und Bergbau Rheinland-Pfalz
24. (de) LGRB Freiburg University
25. (de) LIAG Institut Hannover
26. (de) LUNG MV - Landesamt fur Umwelt, Naturschutz und Geologie
27. (de) Landesamt fur Natur und Umwelt - LANU
28. (de) LfULG Dresden - Sachsisches Landesamt fur Umwelt Landwirtschaft und Geologie
29. (de) Muenchen University
30. (de) RWTH Aachen University
31. (de) TLUG JENA
32. (de) ZALF
33. (es) Barcelona University
34. (es) IGME Madrid
35. (es) Institut Cartografic i Geologic De Catalunya (ICGC)
36. (es) Oviedo University
37. (fi) Geological Survey of Finland
38. (fi) Helsinki University - Institute of Seismology
39. (fi) Turku University Finland
40. (fr) ARMINES - Paris School of Mines
41. (fr) CNRS France - UNISTRA - ENS
42. (fr) Cergy Pontoise University
43. (fr) Geosciences Rennes UMR 6118
44. (fr) INRA Aix-en-Provence
45. (fr) LMTG Toulouse
46. (fr) Pau University
47. (fr) Provence University Aix-Marseille
48. (ie) Geological Survey of Ireland
49. (ir) ICRAG - Irish Center for Research in Applied Geosciences
50. (it) CNR Instit Geo Monterotondo
51. (it) Milano Bicocca University
52. (it) O.G.S. Trieste
53. (it) Padova University
54. (it) Politecnico di Milano
55. (it) Politecnico di Torino
56. (nl) TNO-NITG
57. (nl) TU Delft - DGE
58. (pl) Institute Geophysics Pas Varsaw
59. (pl) Polish Geological Institute - National Research Institute - WARSAW
60. (pt) LNEG Laboratorio Nacional de Energia e Geologia
61. (ro) Geological Institute of Roania
62. (se) Geological Survey Of Sweden
63. (se) LULEA University of Technology
64. (se) Uppsala University - Sweden
65. (si) Ljubljana University
66. (sl) Geological Survey of Slovenia
67. (uk) British Geological Survey
68. (uk) Heriot Watt University
69. (uk) Imperial College - London
70. (uk) UNIV Aberdeen

Oceania

1. (au) Australian National University - Canberra
2. (au) CSIRO
3. (au) Curtin University
4. (au) Department of Water Western Australia
5. (au) Geological Survey of South Australia
6. (au) Geological Survey of Western Australia
7. (au) Geosciences Australia
8. (au) Geosciences Victoria
9. (au) Melbourne University
10. (au) Mineral Resources Tasmania
11. (au) Monash University
12. (au) NSW DPI GEO Survey Maitland
13. (au) Northern Territory Geological Survey
14. (au) Queensland Geological Survey
15. (au) Queensland University ESSCC
16. (au) Tasmania University
17. (au) Western Australia University
18. (nz) GNS Science - New Zealand

Asia

1. (cn) CAS Institute
2. (cn) China University Geosciences WUHAN (CUG)
3. (cn) China University Of Petroleum (UPC)
4. (cn) Institute of Geology CAGS
5. (cn) State Key Laboratory of Coal Ressources and Safe Mining
6. (kr) Chungnam National University
7. (kr) Jungwon University
8. (kr) KIGAM Korea
9. (kr) KNU South Korea
10. (kr) Kangwon National University
11. (kr) Korea University Seoul
12. (sa) King Abdullah University (KAUST)
13. (sg) Nanyang Technological University - Singapore
14. (tw) Academia SINICA
15. (tw) ITRI Taiwan
16. (tw) NCDR Taiwan
17. (tw) CGS Moeva/Geoscience Informatique Guangfus

North America

1. (ca) Alberta DCEE University
2. (ca) Alberta University
3. (ca) Geological Survey of British Columbia
4. (ca) Geological Survey of Canada
5. (ca) INRS ETE
6. (ca) Industry & Research at Saskatchewan
7. (ca) Laval University, GEOIDE
8. (ca) Manitoba Geological Survey
9. (ca) Northern Alberta Institute of Technology (NAIT)
10. (ca) Saskatchewan University
11. (ca) URSTM - UQAT University of Quebec
12. (ca) Waterloo University
13. (us) Arizona University
14. (us) BEG Texas University at Austin
15. (us) CALTECH - California Institute of Technology
16. (us) Energistic (POSC)
17. (us) Geological Survey of Alaska DGGS
18. (us) Harvard Cambridge University
19. (us) Houston University - Earth & Atmospheric Sciences
20. (us) LBL
21. (us) LBNL
22. (us) Minnesota Duluth University (NRRI)
23. (us) Oklahoma University
24. (us) Stanford University
25. (us) Texas University at Austin
26. (us) UNIV Michigan
27. (us) Univ. California Santa Barbara ICS
28. (us) Washington and Lee University

South America

1. (br) DGEO-UFPE
2. (br) PUC Rio
3. (br) SCC-LNCC Petropolis Brazil
4. (br) UFPE-FADE Brazil
5. (br) UNISINOS Brazil
6. (fr) Antilles University

30th Anniversary 1989 - 2019 RING