

RING Team Newsletter, October 2016

In This Issue. . .

- 2016 RING Meeting
- Next Conferences
 - SEG annual meeting
 - 79th EAGE C&E
 - AAPG/SEG workshop
- Last Publications
- Team News

Awards

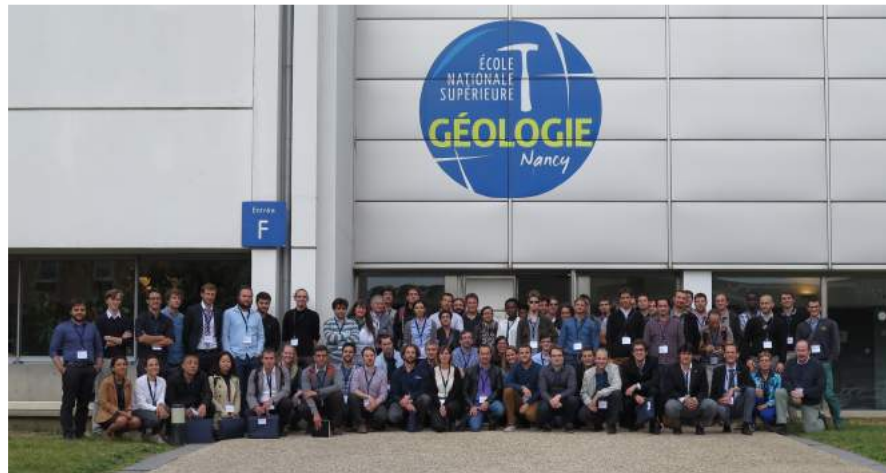
- Guillaume Caumon was awarded the [Regional Distinguished Achievement Award](#) for Petroleum Engineering Faculty for the South, Central and East Europe Region by the Society of Petroleum Engineers (SPE).
- Gautier Laurent, Guillaume Caumon and Mark Jessell received the [2015 best paper award](#) (computational) of Computers & Geosciences.

Attract new skills

We are looking for interns in geoscience software. . .
Please [contact us](#)

Many Thanks to 2016 RING Meeting Attendees

The 2016 RING Meeting attracted an international group of 93 attendees to exchange about geomodeling research. 9 industrial sponsors and 16 associate sponsors were represented during the meeting which took place in Nancy between the 20th and the 23rd of September 2016. ([Read the meeting introduction](#))



Thanks a lot to the presenters and to the attendance for the lively discussions which followed the 28 oral presentations! Papers and presentation slides are available for sponsors on the [RING team website](#). We also had 11 posters and a consistent [training update](#).

Congratulations to Marion Parquer who won the best student oral presentation contest with her presentation entitled: [Reconstruction of channelized systems through a conditioned backward-migration method](#)

All presentation were recorded and will be accessible from the Sponsor's corner as soon as their montage is completed.

Journal Papers since march 2016

- Florent Lallier, Guillaume Caumon, Jean Borgomano, Sophie Viseur, Jean-Jacques Royer and Christophe Antoine. [Uncertainty assessment in the stratigraphic well correlation of a carbonate ramp: Method and application to the Beausset Basin, SE France](#) in: **CR Geosciences**, 348:07 (499-509)
- Francois Bonneau, Guillaume Caumon and Philippe Renard. [Impact of a stochastic sequential initiation of fractures on the spatial correlations and connectivity of discrete fracture networks: stochastic sequential DFN simulation](#) in: **Journal of Geophysical Research: Solid Earth**, 121:8 (5641-5658)
- Pauline Collon, Alexandre Pichat, Charlie Kergaravat, Arnaud Botella, Guillaume Caumon, Jean-Claude Ringenbach and Jean-Paul Callot. [3D modelling from outcrop data in a salt tectonic context : Example from the Inceyol mini-basin, Sivas Basin, Turkey](#). in: **Interpretation**, 4:3 (SM17-SM31)
- Gautier Laurent. [Iterative Thickness Regularization of Stratigraphic Layers in Discrete Implicit Modeling](#) in: **Mathematical Geosciences**, 48:7 (811-833)
- Guillaume Caumon, Mark Jessell, Eric Kemp, Balazs Nemeth, Gervais Perron and Ernst Schetselaar. [Introduction to special section: Building complex and realistic geological models from sparse data](#) in: **Interpretation**, 4:3 (SMi-SMi)
- Guillaume Rongier, Pauline Collon, Philippe Renard, Julien Straubhaar and Judith Sausse. [Comparing connected structures in ensemble of random fields](#) in: *Advances in Water Resources*, 96 (145-169)

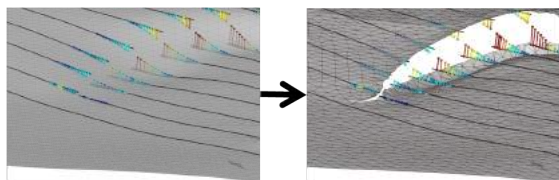
Meet us at conferences . . .

I- 2016 SEG Annual Meeting in Dallas, october 16-21.

- *Seismic interpretation of fault-related deformation using a numerical kinematic model.* **Gabriel Godefroy**, **Guillaume Caumon**, Gautier Laurent and Mary Ford (University of Lorraine).
- *Simultaneous multiple well-seismic ties using flattened synthetic and real seismograms.* **Xinming Wu** (Colorado School of Mines) and **Guillaume Caumon** (University of Lorraine).

Fault deformation analysis

The identification of structural geometries in the vicinity of fault is a difficult challenge in seismic interpretation. In this paper, we propose a quantitative numerical model of fault-related deformation. This model considers localized slip along a fault surface together with a ductile deformation of the strata away from the fault plane. This displacement is described by a compact parameterization able to represent coalescence of several fault segments. We show how these parameters can be inverted automatically to match horizon picks in the neighborhood of faults.



II- 79th EAGE Conference & Exhibition in Paris, 30 May - 2 June.

The RING Team is planing to attend the 79th EAGE Conference & Exhibition with several technical presentations and posters. You will find more information in the next Newsletter.

Team news

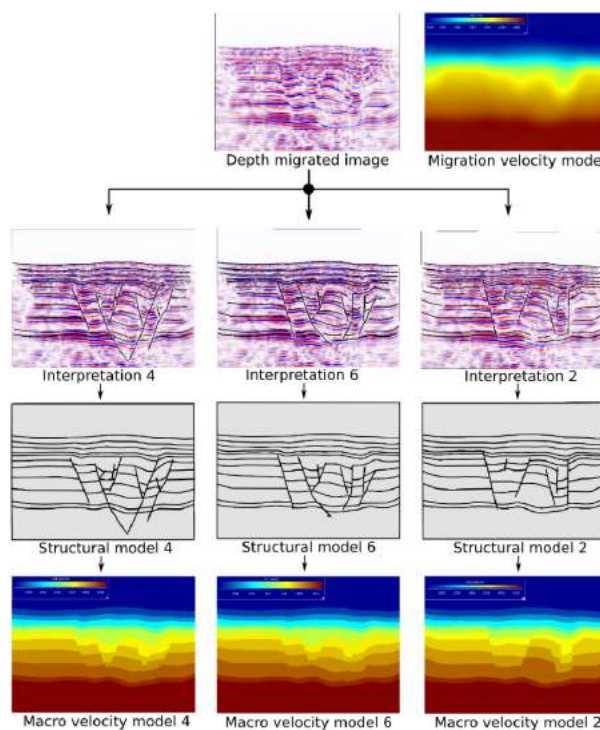
- We are welcoming Tony Delobel who began a 6 month CNRS contract to work on magnetostratigraphic correlations.
- Francois Bonneau will be a part of the GEOTREF project. He is starting a six-month CNRS contract to work on microseismic activity in geothermal systems.
- Pauline Collon will defend her Habilitation on December 2016.
- Congratulations to recent alumni:
 - Guillaume Rongier started a post doc at MIT.
 - Arnaud Bottela started a post doc at TOTAL.

III- AAPG|SEG Advances in Subsurface Imaging and Mapping, October 26-27, Muscat (Oman).

Reducing fault-related structural uncertainties by ranking models using seismic data misfit functions. **Modeste Irakarama**, Gabriel Godefroy, Paul Cupillard, Guillaume Caumon (University of Lorraine) and Paul Sava (Colorado School of Mines)

Reducing structural uncertainties

In this work, we propose a strategy (1) to obtain consistent reflection data interpretations, and (2) to rank available interpretations by integrating vertical seismic profiling (VSP) data.



The method starts with several structural interpretations from a seismic image. Combining these interpretations to the migration velocity model yields various macro velocity models in which synthetic data are computed. An objective function estimating the misfit between synthetics and observed data enables to rank the structural models.

Contact information

RING - ENSG - Georessources
 2 Rue du Doyen Marcel Roubault - TSA 70605,
 VANDOEUVRE-LES-NANCY, 54518, France
<http://ring.georessources.univ-lorraine.fr/>
 RING youtube channels – RING LinkedIn group
 Twitter: @ring_team