



## From Deep Earth to Surface processes: integrating lithosphere dynamics with rift basins and margins

A joint meeting of the TOPO-EUROPE Programme and ILP Task Forces Sedimentary Basins (VI), Subducted Lithosphere (IV), Magma and lithosphere (II)

**Clermont-Ferrand, 2-6 October 2016**



ILP	TOPO-EUROPE
<p>The <b>International Lithosphere Program (ILP)</b> seeks to elucidate the nature, dynamics, origin and evolution of the lithosphere. The ILP is charged with promoting multidisciplinary research projects of interest to both the geological (International Union of Geological Sciences, IUGS) and geophysical (IUGG) communities.</p> <p>The ILP seeks to achieve a fine balance between satisfying scientific curiosity and addressing societal needs especially for sustainable development, and geological risk.</p> <p>ILP Task forces such includes <b>Topo-Europe, Sedimentary Basins, Subducted Lithosphere and Magma and lithosphere</b>, where public communication of science is a priority.</p>	<p><b>TOPO-EUROPE is an ILP</b> component that promotes, coordinates and integrates national research programs on geological surface processes and their implications for continental topography and natural hazards in a coherent European network, that includes the whole Mediterranean area.</p> <p>The aim of this annual meeting is to provide an interdisciplinary forum for sharing knowledge and information in the fields of tectonics, volcanology and topographic evolution of Europe and to encourage sustainable use of our Earth's resources.</p>

**Organizer:** Benjamin van Wyk de Vries, [b.vanwyk@opgc.fr](mailto:b.vanwyk@opgc.fr), (tel +33 660206927)

**Contact and logistics:** *Cat Lit*, [c.lit@opgc.univ-bpclermont.fr](mailto:c.lit@opgc.univ-bpclermont.fr)

**Information:** <http://lmv.univ-bpclermont.fr/>

**Abstracts submission, Registration, and Payments:** <http://ilp2016.sciencesconf.org>

### ***2016 Meeting objectives***

This meeting brings together investigators studying different interconnected solid Earth processes in a number of world class natural laboratories. One of these is the Western European Rift System, the site of the meeting. The meeting focuses on an integration of modeling and observational approaches, linking the different spatial and temporal scales.

Central to the meeting is the examination of the role of magmatism and the dynamics of sedimentary basins, as an integral part of the processes that drives the evolution of the Earth topographic surface.

This topic is not only a frontier in integrated Solid Earth sciences, but also of great societal importance, in particular for natural hazards and sustainable geological resources.

### ***2016 Meeting Location***

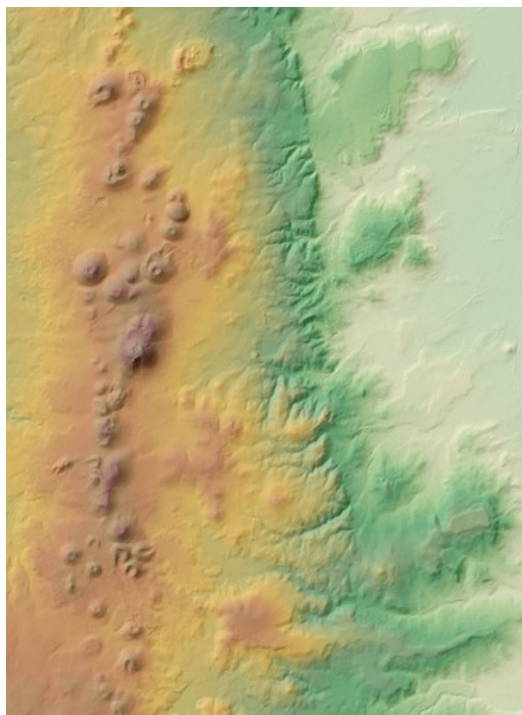
The meeting will be hosted in the City of Clermont-Ferrand, sited on the western margin of the Limagne Rift. Clermont-Ferrand itself stands on a maar volcano, nestles the Limagne Fault and is embraced by inverted relief lava plateaux extending from the Chaîne des Puys.



The City hosts Blaise Pascal University and the Laboratoire Magmas et Volcans, which will organize the meeting for the ILP.

The participants will have the opportunity not only to debate their science in the 1273AC Chapel des Cordeliers, set in a maar crater, but to discuss in local field sites a stones throw from the meeting site.

Field trips will visit the Limagne Fault, The Chaîne des Puys, shallow intrusions in the Limagne Basin and probably the most tectonic view in Europe from the Col de Beal, where the Alpine orogeny, and the full extent of the Western European Rift can be seen in one 360° panorama. Evening discussions will be animated by fresh local produce, with cheese, wine.



**Keynote / Invited Speakers:** Sierd Cloetingh, Hans Thybo, Donald Dingwell, Ken Ferrier, Mahar Lagmay, Andrew Harris, Steffi Burchardt, Hiroshi Sato, Francois Roure, Bill Rose, Thomas Walter, Olivier Galland, Henrik Svenson.

**Public speakers:** Peter Bitschene, Roland Oberhaensli

### **Planned discussion sessions**

*Posters and encouraged for all sessions and will remain up for the whole conference. There will be ample time to present and discuss the posters at coffee times, and special reception times. We encourage posters to be submitted before to be also displayed on-line.*

*The number of talks will be restricted to allow for ample discussion time.*

A) Dynamics of landscape evolution and its interaction with deep Earth processes: *a multi-scale session dealing with all aspects of landscape evolution, bringing together modeling, observational approaches, as well as analytical methods*

(Speakers: Sierd Cloetingh, Hans Thybo, Ken Ferrier, Mahar Lagmay)

B) Volcanic Risk, Communication, outreach: the aim of this session is to discuss risk and resilience and ways that research can be communicated to stakeholders, public and other scientists. Especial attention will be given to the use of Geoheritage Sites in communication. Issues tackled will be: 1) best practice for communicating science, 2) how to strike the right balance between hard science and entertainment, 3) journalistic methods in presenting science, 4) dealing with political framing and agenda setting. The session will be followed by an evening public lecture by Volcan Eiffel director - Peter Bitschene

(Speakers: Andy Harris, Peter Bitschene, Bill Rose) [Convenor: van Wyk de Vries]

C) Coupling Earth Observation methodologies to Solid Earth Dynamics (co-sponsored by ESA): dedicated session to satellite observation methodologies and future missions, with particular focus on their integration with Solid Earth Science.

D) Volcanism and solid Earth processes at all scales (co-sponsored by ILP Task Force Magma and Lithosphere-II and Task Force Lithospheric Subduction-IV) : a dedicated session to look at the processes of intrusion and eruption in different tectonic settings: talks and presentations on intrusions, volcanism and environmental impact. Deep Earth dynamics through understanding of the mantle solid-state flow, mantle plumes, fluids, and magmatic activities at continental margins and inter-plates settings.

(Speakers: Don Dingwell, Trond Torsvik, Thomas Walter, Olivier Galland, Steffi Burchardt) [Convenors: Alessandro Tibaldi, Larissa Dobrzhinetskaya]

E) Dynamics of Sedimentary Basin Systems (co-sponsored by ILP Task Force VI): a dedicated session to examine processes active in sedimentary basins at all temporal and spatial scales. [Convenors: Liviu Manteco, Fadi Nader]

(Speakers: Hiroshi Sato + Francois Roure)

F) Sustainable geo-resources - Catastrophe or gradual change. The aim of this session is to discuss the best use of resources in different tectonic settings, from the surface, water, through hydrocarbons and geothermal energy to mining. How can such activities be reconciled with sustainable development. (A *public talk by Roland Oberhaensli IUGS President and Univeristy of Potsdam*)

(Speakers: Henrik Svenson, Roland Oberhaensli)



## Preliminary Summary Schedule

Saturday 1<sup>st</sup> October – Arrival of participants

- Sunday 2<sup>nd</sup> October – Pre-Meeting Field trip 'the Limagne Fault and the Chaîne des Puys' – evening reception at Laboratoire Magmas et Volcans
- Monday 3<sup>rd</sup> October – Meeting sessions *and evening buffet / public talk by Peter Bitschene (Vulkaneifel Global Geopark)*
- Tuesday 4<sup>th</sup> October – Meeting sessions and *conference dinner at Lemptégy Volcano*
- Wednesday 5<sup>th</sup> October – Meeting sessions and evening buffet / public talk by Roland Obserhaensli (University of Potsdam, President IUGS)
- Thursday 6<sup>th</sup> October – Post Conference Field Trip 'From Mountain building to Rifting – panoramic transect from the Alps to the Massif central in one viewpoint' - *Evening reception Bonjean Winery.*

Friday 7<sup>th</sup> October Participants leave

### Transport:

**Air:** Clermont-Ferrand airport (CFD), connections to Paris, Lyon, Amsterdam, Madrid, Porto.

**Train:** from Paris, Lyon and Montpellier

**Car:** on Autoroutes from Paris (3:30hrs), Lyon (1:30 hrs), Geneva (3:30hrs)

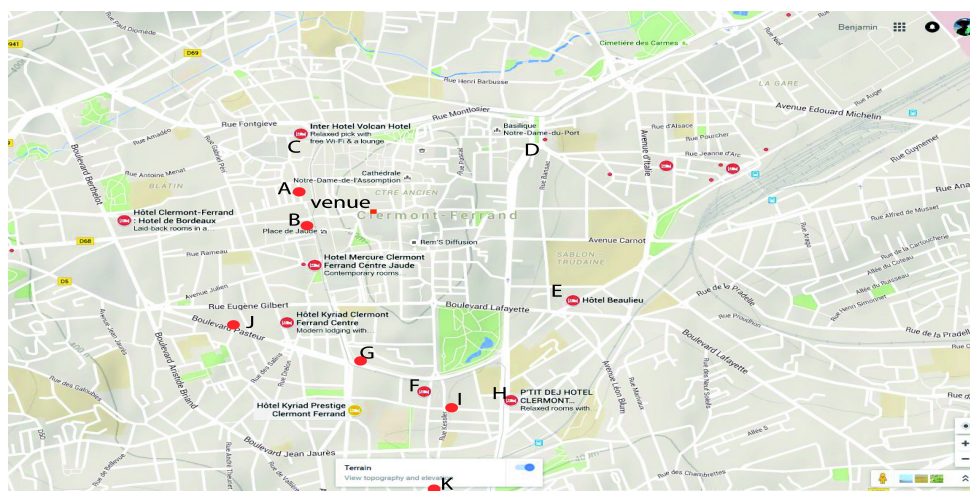
**Bus:** Long distance bus from many destinations.

### Accommodation:

Many fine hotels in Clermont-Ferrand centre, Student accommodation will also be available. Prices from very cheap to very expensive.

Some hotel options are listed and shown on the map (all available on line and in booking websites).

- A. Dav Hotel (400 m from venue)
- B. Hotel de Lyon (300 m from venue)
- C Inter Hotel (800 m)
- D. Hotel des Puys (800 m from venue)
- E. Hotel Beaulieu (1200 m from venue)
- F. Holiday Inn (800 m from venue)
- G. Oceania Hotel (800 m from venue)
- H. Petit dej Hotel (1000 m from venue)
- I. Maison Internationale Univeristaire (900 m from venue)
- J. Apart Hotel (700 m from venue)
- K. CROUS student accommodation (1500 m from venue)



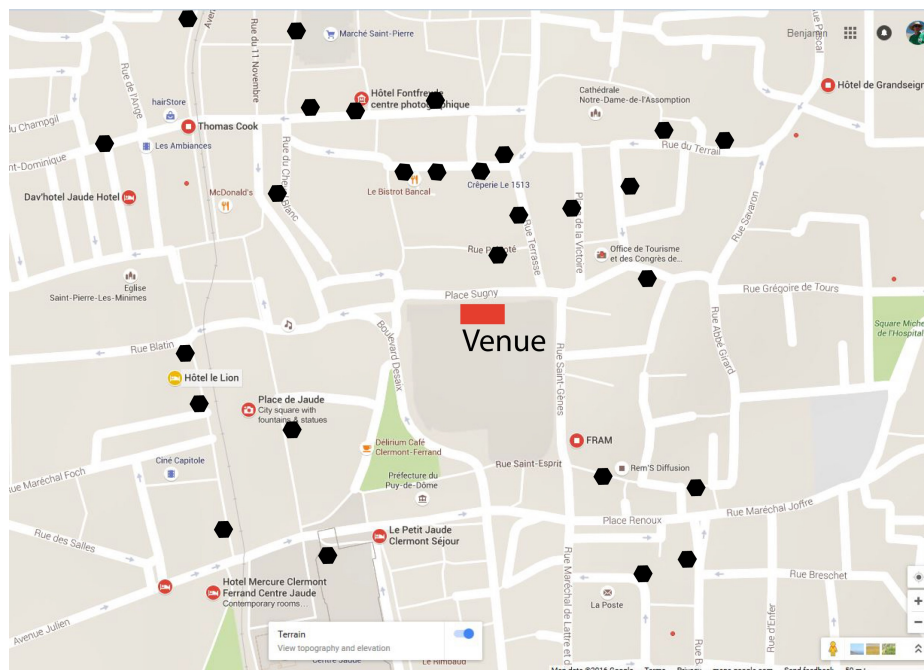
**Venue:**

Chapelle des Cordeliers: 13C de-consecrated chapel in heart of Clermont-Ferrand, part of the Departmental Council of the Puy de Dome.

**Food and Dining:**

Lunch and evening buffet provided. Full range of restaurants in Clermont-Centre (see map for some of the locations, as black hexagons) that are too numerous to list!), visit to Wine Cellar imperative!

Conference dinner in the Lemptéguy Volcano.



**Field Days: 2 field days (Field and discussion guide)  
and one pre-dinner walk around the Lemptéguy volcano.**

**Day 1. 2<sup>nd</sup> Oct. Basins, Rifts, Volcanism and Faults (See Map) (Cost 30€)**

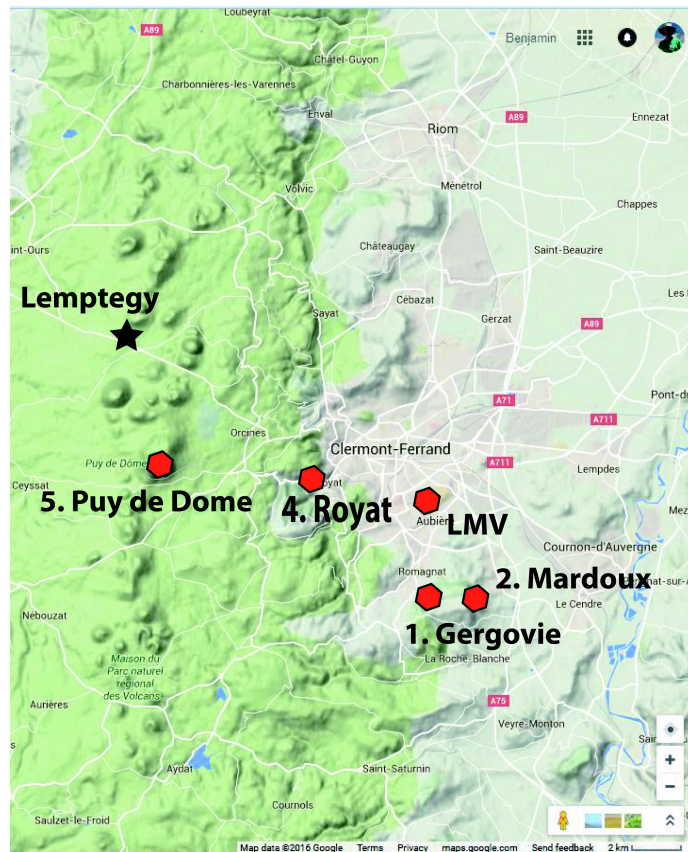
1. View from the Gergovia Battle plateau of the Limagne Fault, The Rift, the Inverted relief plateaux and the Chaîne des Puy.
2. Walk through the Mardoux maar, including basin marls and limestones, intrusions, diatreme structure, sills with sediment mobilisation, peperites, vents and deposits.
3. Lunch at the battle site.
4. Visit to the Limagne fault sites and the Royat Park and Spa, CO<sub>2</sub> lake in the 'Grotte du Chien'.
5. OR train trip up the Puy de Dome (weather dependent)
6. Reception at the Laboratoire Magmas et Volcans new building.

**4<sup>th</sup> Oct.** Inter conference evening excursion to Lemptéguy Volcano. Tour around the 'open air volcano'. Rifts, transform faults and thrusts in miniature, intrusions and eruptions. The Chopine Trachyte explosive eruption. 4D film and exhibition. Then Dinner.

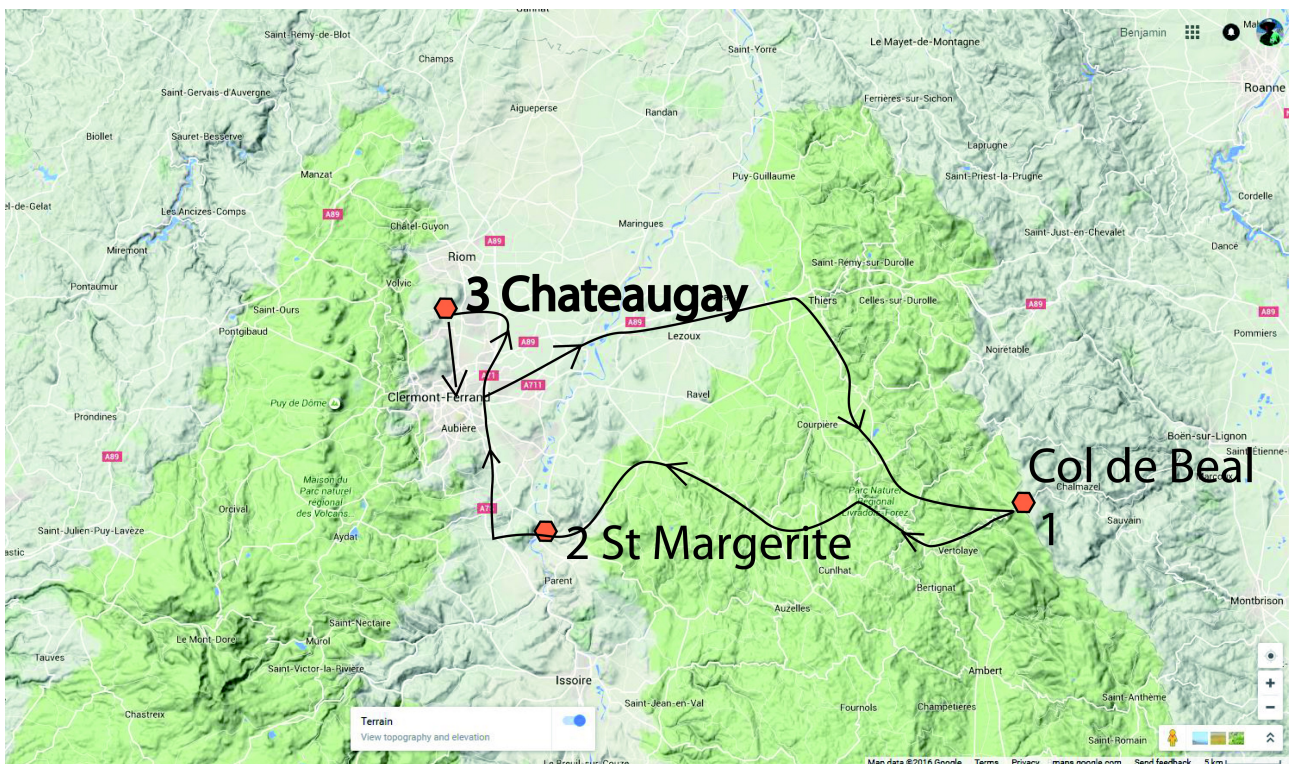
**Day 2. 6<sup>th</sup> Oct. An Orogeny, two rifts and a Lithospheric doming in one sweep of the eye (Cost 30€)**

1. Early morning trip to Col de Béal, breakfast at Col and View of the Alpine Chain (Including Mont Blanc), two rifts and the whole range of massif central volcanoes
2. Return to Visit to St Margarite Spring, and CO<sub>2</sub> Geysers.
3. To Chateaugay Vineyards to see Miocene Faulting, landslides, and lava flows and pyroclastic flows from the Chaîne des Puy
4. finishing with wine tasting and final meal.





**FIELD MAP 1. Field day 1, and Lempdes location.**



**FIELD MAP 2. Day 2 Excursion.**

**Registration fee:**

	Early	Late	Onsite	Field 1	Field 2	Both Field	Conf dinner
<b>Full</b>	<b>185€</b>	<b>245€</b>	<b>275€</b>	<b>30€</b>	<b>30€</b>	<b>50€</b>	<b>20€</b>
<b>Student</b>	<b>60€</b>	<b>80€</b>	<b>100€</b>	<b>20€</b>	<b>20€</b>	<b>30€</b>	<b>20€</b>

**Payments:** Payment can be made by three methods:

1. check in Euros, made out to: 'l'agent comptable de l'université Blaise Pascal.
2. by institutional bank transfer (after filling in a form)
3. by credit card – open 15 June 2016.

Registration form: Available from June 15<sup>th</sup> 2016

Abstract form: Available from June 15<sup>th</sup> 2016

**Abstracts submission, Registration, and Payments:** <http://ilp2016.sciencesconf.org>

**Deadlines and timeline:**

- Preliminary Circular: 8 April 2016
- Abstract submission and registration: from 25 April 2016
- Third Circular: 22 July 2016
- Early Registration deadline: 25 August 2016
- Abstract deadline: 01 Sept 2016
- Final Circular: 10 Sept 2016
- Meeting starts: 2 Oct 2016

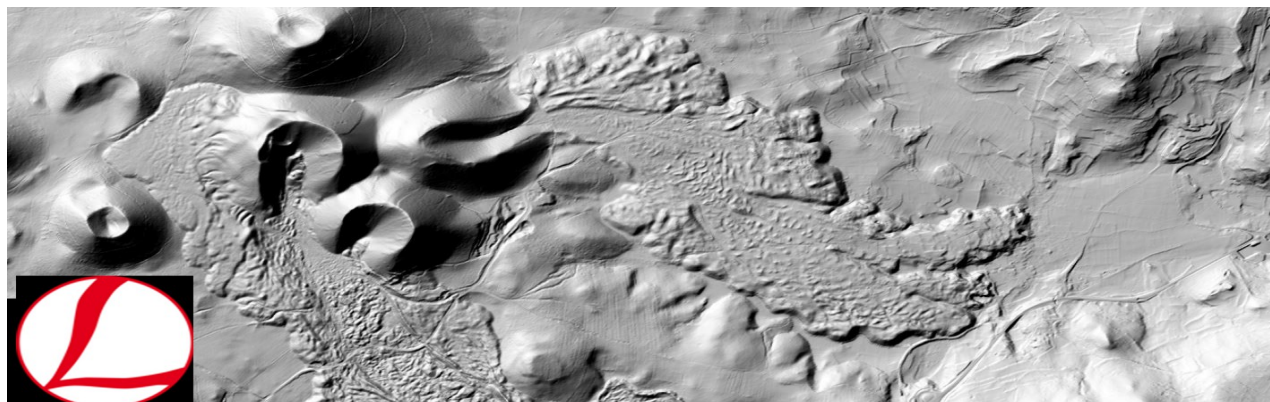
**Financial Support:** Financial support is available for European PhDs, post-docs and non-european ILP-TOPOEUROPE participants. Requests for support should be sent to [b.vanwyk@opgc.fr](mailto:b.vanwyk@opgc.fr) and will be examined by the ILP committee.

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## Instructions now to register, submit an abstract and pay

1. Go to <https://ilp2016.sciencesconf.org/>
2. Click on Login (top right) and create a new account.
3. Fill in the required information (\*).
4. You will receive an account activation link in your email.
5. Click on the activation link in your email, this will redirect you to the conference webpage, so you can login with your account details.
6. Upon login, it will show your account space, showing "Submissions" and "Register" options.
7. You have the option to submit an abstract by clicking "My submissions".
  - add title, abstract text and affiliation (you may use up to two pages with images)
  - If you have images and figures it helps to email the abstract directly to:  
– [c.lit@opgc.univ-bpclermont.fr](mailto:c.lit@opgc.univ-bpclermont.fr).
8. Or you can register directly for the conference directly, by clicking "Registration".
9. Fill in the registration details required on the webpage, making sure all the required details have been indicated.
10. Once you have filled in all the registration details, the 'Overview' button will allow you to review your details, before clicking the "Submit" button.
11. You can modify your registration details by clicking "Modify data"
12. Upon submission of your registration you will be lead to the payment page where you have the option to pay online by **credit card**, or by **cheque**, or by **bank transfer**.
13. You will receive a registration/payment confirmation through email.
14. Thank you for registering for ILP TOPO-EUROPE 2016, See you in October!

Cat Lit ([c.lit@opgc.univ-bpclermont.fr](mailto:c.lit@opgc.univ-bpclermont.fr))