



**LERU 2012
Bright Student Conference 13 – 17 August 2012
University of Amsterdam**

Theme	"Networks: Complex Futures"
Candidates	PhD, Master, Bachelor students who have completed at least their third year of studies with excellent results
Application	Curriculum Vitae Letter of motivation in English, which must include <ul style="list-style-type: none">- a demonstration of broad interests- an indication of the top three preferences for working groups (see topics 1-11)- an indication of whether the applicant would like to chair a working group
Deadline	13 April 2012 by post (no e-mails) Universität Zürich, Abteilung Internationale Beziehungen Rämistrasse 71, 8006 Zürich
Fees	The participation fee (including accommodation and meals) as well as travel costs (fixed amount) will be covered by the Abteilung Internationale Beziehungen. The participant will organize the journey and will be reimbursed after the Conference.

For further details please visit the teaser "Aktuelles" on our website:
<http://www.int.uzh.ch/index.html>

For questions please contact Abteilung Internationale Beziehungen,
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The BRIGHT Conference 2012
Networks: Complex Futures
University of Amsterdam, 13 - 17 August 2012

The BRIGHT Students' Conference is the annual gathering of students from member universities of the League of European Research Universities (LERU). The conference, now in its ninth year, aims to provide an environment in which excellent students, as field specialists and stakeholders of the Europe of tomorrow, can focus on themes crucial to their education and cultural development. While LERU was founded to enhance the cooperation between Europe's top research universities, the purpose of the BRIGHT Conference is to develop a strong network between Europe's brightest students and to offer them a platform on which they can discuss politically, socially and intellectually challenging topics that are shaping our present and future.

The BRIGHT Conference is organised by students, for students. Two hundred students from 21 universities, all members of the LERU, can participate in this four-day forum. The 2012 edition of the BRIGHT Conference will be held at the University of Amsterdam from 13 to 16 August. On 17 August, there will be a cultural and social programme including a visit to one of Amsterdam's world-renowned museums and a guided canal boat tour through the historical city centre.

The theme of the 2012 Conference – 'Networks: Complex Futures' – will explore the challenges of complex interactions. The theme is based on the idea that networks, whether they are in the areas of chemistry, economics or communication, share common features. The Conference will celebrate interdisciplinarity by setting up working groups to discuss fundamental questions regarding networks in science, society and the humanities, ranging from the theoretical, such as 'the adaptivity of networks to change', to the concrete, such as 'policies on net neutrality'. Keynote speakers from academia, politics and the business community will introduce key concepts about the networked world, thus introducing students to an inspiring analytical framework for use in their own discipline and beyond.

The programme will consist of lectures, panel discussions and 10 working groups, the latter which will examine the following issues:

1. Complexity: What is the nature of complex networks? Many networks are complex; they cannot be easily understood in terms of linear relationships. This is primarily the case because their nature is characterised by emergence. One node alone tells little about the network as a whole. They are also self-organising, which means that although there is no hierarchy that determines the behaviour of the network, the network does seem goal-directed. In this working group, students will analyse the nature of complex networks, drawing on examples from their respective fields.
2. Diversity: What is the role of diversity within the campus network? A university brings together students and faculty who move in different social networks. They differ in their academic disciplines, the subcultures they subscribe to, and possibly their city or country of origin. Indeed, many institutions of higher education advertise that they offer a culturally diverse learning environment. In this working group, students will investigate the effects of diversity on the campus.
3. Cooperation: What happens when many individuals work together? Cooperation preoccupies many disciplines, whether in the study of social insects, robots or humans. In each case, we can think of these individuals as nodes in a network. Their interactions are not determined by a hierarchy or a blueprint. Instead they emerge from the network itself. In this working group, students will discuss examples of networked cooperation in their fields to try to find common mechanisms.
4. Community: Can we build virtual communities? Today it is often stated that Facebook, if it were a country, would have a population smaller only than that of India or China. The idea of virtual communities goes back much further than the history of Facebook, but it has always been plagued by one question: can we form meaningful relationships over the Internet? In this working group, students will investigate how the Internet and platforms such as Facebook have changed and will change our notion of community.
5. Net Neutrality: Should we protect the neutrality of Internet infrastructure? The Netherlands is the second country in the world to implement a law on net neutrality. The implication of this law is that telecommunication providers cannot discriminate between different kinds of content distributed over the Internet. Many activists support such legislation, as they view it as a matter of free speech. Most businesses, on the other hand, are concerned with freedom of enterprise. From a more technical point of view, this issue is very closely related to network security. In this working group, students will bring together different perspectives to discuss the pros and cons of net neutrality.
6. Adaptation: Are networks better able to survive changes than hierarchies? In a world where drastic change – of regimes as well as climates – is recurrent, being able to adapt to new circumstances is crucial. Decentralised structures have properties that help them deal with change. A vivid example can be taken from biology: whereas the decentralised neural structure of the starfish helps it to regenerate after the loss of a limb, a spider, with its centralised neural structure, would die in a similar situation. In this working group, students will analyse how decentralised networks respond to change.
7. Sustainability: Can an understanding of the properties of networks help us in achieving sustainability? Networks play a role in many environmental and energy issues. One example is energy policy, where the technical details of the smart grid matter as much as the decision about whether energy production should be decentralised. Another question that might be discussed is global governance in the forestry sector. This working group will bring together students from different disciplines to discuss the benefits and disadvantages of networks for ecological sustainability.
8. The City: Amsterdam is developing into a smart city. The municipality is part of the European Union's Open Cities pilot project. This includes leveraging the wisdom of the crowd to gather input for its infrastructure projects, and for opening up and decentralising the process of urban planning. In this working group, students will explore the Open Cities project in Amsterdam and discuss the role of crowdsourcing in urban planning.
9. Control: How do we manage complex networks? The interaction of many individual components results in outcomes that are hard to predict. Interventions in networks may destabilise fragile equilibriums. Policymakers, researchers and businesses therefore need to find strategies to manage the complexities they encounter. Regulating the stock market requires an understanding of its emergent behaviour, as does preserving an ecosystem. In this working group, students will discuss strategies that can help in dealing with complex networks.
10. Imagining the Network: What does a network look like? Rather than just one network, there are many different kinds of structures. They all have different mathematical properties and a different visual appearance. A specific example is a scale-free network – a network that is self-similar, looking the same no matter how deeply you zoom into it. In this working group, students from different disciplines – mathematics and the arts, in particular – will collaborate on imaging and creating networks.
11. Change: Who were the leaders of the Arab revolutions? When people across the Middle East revolted against their regimes a year ago, their adversaries as well as their supporters were at pains to identify the masterminds behind the uprising. Others have argued that what the world saw were revolutions without hierarchy, driven by networks of activists. In this working group, students will examine the nature and potential of networked social movements, from the Arab revolutions to Occupy and Anonymous.

The BRIGHT Conference 2012 includes cultural activities in the old inner city of Amsterdam, a gala dinner and a real Amsterdam cycling experience.

Ideal candidates will meet the following requirements:

- have good communication skills in English,
- have completed at least their third year of studies with excellent results (Master's and PhD candidates are also welcome to apply),
- display an interest in European institutions, especially the LERU, with regard to the subject matter of the Conference.

As a part of the selection procedure, we will require:

- a Curriculum Vitae,
- a letter of motivation, which must include:
- a demonstration of broad interests,
- an indication of the top three preferences for working groups (see the topics above),
- an indication of whether the student would like to chair a working group.

(Natural) science students in particular are encouraged to apply, along with students who are willing to look beyond their own field, e.g. a biology student with an interest in communication studies or a film studies student with an interest in computer science.

The Organising Committee will assign the selected students to working groups, bearing in mind the topics they listed in their letters of motivation as well as diversity with respect to fields of study, nationality and home university. The selected students will receive an invitation to prepare a discussion paper of 3,000 characters (\pm 500 words) on the topic of the relevant working group. Alternatively, students might prepare a short video or write a programme as preparatory work for the Conference. Note that all papers and other contributions will be made available for distribution on the BRIGHT 2012 website.

Further information will be provided on the website (available as of 30 March): www.uva.nl/Bright2012. For questions, please feel free to contact the Organising Committee at Bright2012@uva.nl.