



International Materials Institute for New Functionality in Glass

IMI-NFG Mini Course

Glass in Energy

Lectures by Professor Rui Almeida

With Guest Lectures by Prof. Steve Martin

Jan 17 – Mar 1, 2012

12.10 – 1.00 pm; Tu and Th

Today's lecture will begin promptly at 12:10

Hopefully you have already established the logon process at one of our earlier testing sessions. For any problems today contact Judd Hark judd.hark@Lehigh.edu or call Sarah Wing at 610-758-1112. An archive video of this session will be available if you have any problems today.

Course documents and other info at:

www.lehigh.edu/imi/GlassInEnergy.html

www.lehigh.edu/imi



1



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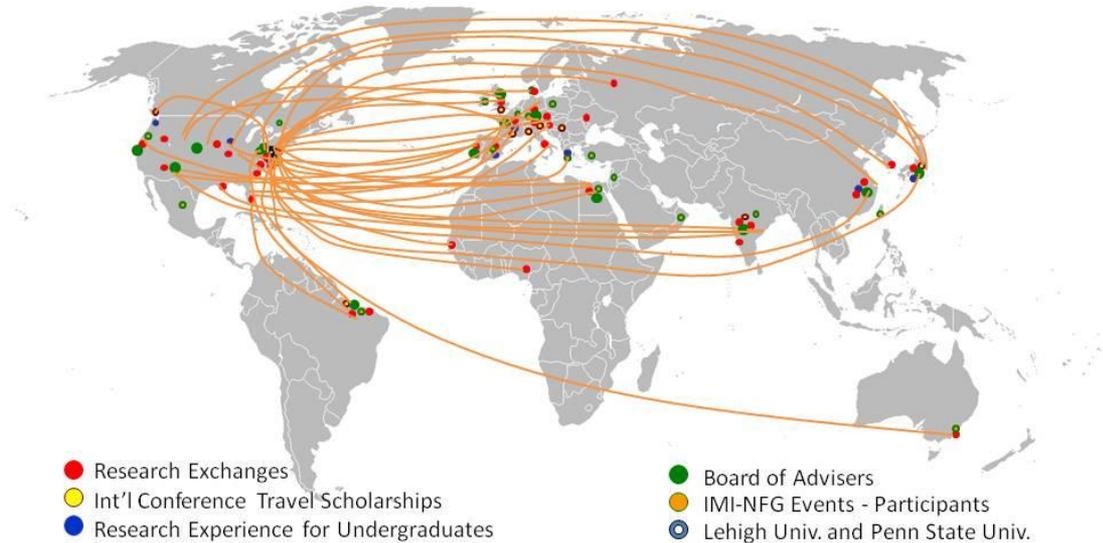
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Glass Global Network: IMI-NFG Programs Links Researchers Across Five Continents

- Over 60 US-foreign collaborations, resulting in over 115 IMI-NFG sponsored research exchanges between US and international institutions.
- Produce 250+ videos (lectures, seminars, demos & presentations) for the online learning library featuring world-wide experts in glass.
- Sponsored 3 major International Workshops, bringing a total of 248 academia, industry and government representatives together.
- 51 students from 33 US affiliations in 16 different states participated in summer or regular term Research Experience Undergraduate (REU) programs. In addition, 12 international REU placements in 7 different countries took place.
- Awarded 54 International Conference Travel Scholarships for young scientists to attend 23 different international conferences in 14 different countries.
- Winter School in Glass - US-Japan 2008 and US-China 2010.
- Over 50 publications.
- Established outreach programs to encourage young scientists (k-12) and minority groups.

Growth of IMI-NFG Global Network: 2004-2011



Australia	<i>Canada</i>	Denmark	<u>France</u>	<u>India</u>	<u>Japan</u>	Portugal	<i>Slovakia</i>	<i>Switzerland</i>	Ukraine
Brazil	<u>China</u>	<u>Egypt</u>	<u>Germany</u>	<u>Ireland</u>	<i>Nigeria</i>	<i>Romania</i>	<u>S. Korea</u>	<i>Taiwan</i>	U.K.
<u>Bulgaria</u>	Czech Rep.	Estonia	<u>Greece</u>	<u>Israel</u>	<i>Oman</i>	<i>Russia</i>	Spain	<u>Turkey</u>	<u>U.S.A</u>
		<u>Finland</u>	<i>Hungary</i>	<u>Italy</u>	<i>Poland</i>	<i>Senegal</i>			

Active collaborative work through IMI Research Exchange & International REU Programs for 2010-11 are depicted in **bold - underlined** type. Countries in **bold** type, but not underlined, indicate countries where IMI have active or ongoing collaborative work in progress from previous exchanges prior to 2010-11 reporting year.

- **collaborative links with 65+ US academic institutions from 32 States and 100+ international institutions from 31 countries.**
- **100+ senior participants, 200+ collaborators & visitors**
- **hundreds of students/researchers from k-12 to postdocs.**

Glass Education (at all levels) without Boundaries

- Internet accessible video library
- Full semester-length courses
- Cooperative teaching and learning
- Hands-on Glass Science Curriculum for the Junior

Scientist:

Science camps.

Mentoring of high school students in glass research.

- Outreach to the general public:

‘Pennsylvania Glass Trail’

New Glass Technology for Artists

Demo for Science Museums



Advanced Glass Education: Glass Courses

1. Optical and Photonic Glasses by Prof. Rui Almeida
2. **Physical Properties of Glass - MITT Course**
3. **The Structure of Glass - MITT Course**
4. Relaxation Processes in Glasses and Polymers - Dr. Ulrich Fotheringham, Schott Glass + Guest Lecturers
5. Chalcogenide Glass - Yong Choi, Korea + Guest Lecturers
6. Glass in Energy - Prof. Rui Almeida, Instituto Superior Técnico, Lisbon, Portugal. Currently, IMI-NFG Sabbatical Faculty at Lehigh University
+ Guest Lectures by Prof. Steve Martin, Iowa State

<http://www.lehigh.edu/imi/librarytech.html>



Rules

Due to the overwhelming response to this course with 120+ participants from 32 Academic Institutions and 15 Companies in 17 countries, the following rules are suggested for maximum benefit to all participants:

1. If you have a question during the lecture, please type it in the text box on your screen. The moderator will be reading all the questions and advise the lecturer to respond at appropriate times, approximately every 12-15 minutes.
2. If your question is not answered, please bring it up again at the end of the lecture or email it to Prof. Almeida at <rua204@lehigh.edu> .
3. If you are taking the course for credit, please consult your local professor for specific requirements. IMI-NFG is not involved in granting formal credits for degree at any institution.

