



GENI Optical Workshop

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www.geni.net

Clearing house for all GENI news and documents



The GENI Facility :

A national facility to explore radical designs for a future global networking infrastructure

- ✓ Support experiments on a wide variety of problems: communications, networking, distributed systems, cyber-security, and networked services and applications.
- ✓ Give researchers the opportunity to experiment unfettered by assumptions or requirements and to support those experiments at a large scale with real user populations.
- ✓ Include a heterogeneous mix of substrate technologies: wireless, optical, sensor, processor, storage



Background/Introduction

- | | | |
|-------|--|--|
| 9:30 | Welcome, workshop objective | Kristin Rauschenbach, GPO |
| 9:40 | GENI Introduction | Paul Morton, NSF |
| 9:50 | Backbone Node High-Level Requirements | Dan Blumenthal, UCSB |
| 10:05 | Time to start building: how will optics influence future network architecture? | Chip Elliott, GPO |
| 10:40 | GENI substrate going forward | Joe Evans and
Kristin Rauschenbach
Co-Chairs: Substrate WG |

Lunch Speaker
2:45

GENI Program
Working Groups

Suzi Iacono, NSF
Aaron Falk, GPO



Discussion topics

- | | | |
|-------|-------------------------------------|--|
| 10:45 | Photonic integration trends | Tom Koch, Lehigh |
| 11:30 | Commercial optical research roadmap | Franko Kueppers
U of Arizona |
| 12:15 | Lunch | |
| 12:30 | Topological optical opportunities | Ruth Ann Mullen
Photon Futures, LLC |
| 1:15 | Cross layer research opportunities | Keren Bergman
Columbia |
| 2:00 | Optical edge architectures | Stojan Radic, UCSD |



Wrap-up

3:15 Wrap-up Panel Session: summary and next steps

Curtis Menyuk, UMBC

Physical Layer

Alan Willner, USC

Subsystem and Switching Layer

Biswanath Mukherjee,
UC Davis

Network Layer

4:15 Summary

4:30 Adjourn



Marching orders

- GENI is a facility to support the networking and computer science community
 - Optics is important to GENI
- Listen and learn
- Speak up and educate
- Think collaboratively: GENI is a team effort
- Think broadly and freely: GENI is an opportunity to think beyond today's limitations and conventions