

*E<sup>3</sup>S Annual Retreat, September 19-20, 2019, Berkeley*

# Welcome and Review of Agenda

**Eli Yablonovitch**

*Director*

*Center for Energy Efficient Electronics Science*



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**Berkeley**  
UNIVERSITY OF CALIFORNIA

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CHANCELLOR'S OFFICE

Center for Energy Efficient  
Electronics Science



# **This is a Private Meeting.**

**This is not a public disclosure of information.**

**For our corporate partners, please share the information from this meeting with your Company to help build bridges between your Company and the Center.**



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# Welcome to the 2019 E<sup>3</sup>S Annual Retreat

- E<sup>3</sup>S Faculty, Students, Postdocs and Staff
- Industry Partners
  - **Applied Materials:**
    - Toshihiko Miyashita
  - **IBM:**
    - Paul Solomon
  - **Intel:**
    - Uygur Avci
  - **Lam Research:**
    - Hwan Sung Choe
    - Yezdi Dordi



# Retreat Agenda: Day 1, Thursday, September 19

Time	Activity / Topic	Speakers
7:30 AM	<i>Breakfast &amp; Check-In</i>	
8:00 AM	<b>Welcome &amp; Introduction</b>	
	Review of Agenda	
	Goals for the Retreat	Eli Yablonovitch
	Center Overview	
8:30 AM	<b>Theme I: Nanoelectronics</b>	
	Theme I Overview	Eli Yablonovitch
	Progress on Graphene Nanoribbon Project	Steven Louie
	Progress on III-V Nanowire Transistor Project	Jesus del Alamo
	Progress on 2D Chalcogenide Transistor Project	Shiekh Zia Uddin
	Open Discussion	
9:45 AM	<i>Break &amp; Poster Set-Up</i>	



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# Retreat Agenda: Day 1 (morning) *continued*

Time	Activity / Topic	Speakers
10:05 AM	<b>Theme II: Nanomechanics</b>	
	Theme II Overview	Tsu-Jae King Liu
	Progress on NEM Relay Project	Junqiao Wu
	Progress on Squitch Project	Farnaz Niroui
	Progress on Stritch Project	David Zubia (remote)
	Open Discussion	
11:20 AM	<b>System Integration</b>	
	System Integration Overview	Rawan Naous
	Open Discussion	
11:50 AM	<b><i>Lunch and Poster Session</i></b>	



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# Retreat Agenda: Day 1 (afternoon)

Time	Activity / Topic	Speakers
<b>1:10 PM</b>	<b>Theme IV: Nanomagnetism</b>	
	Theme IV Overview	<b>Jeffrey Bokor</b>
	Progress on Ultrafast Magnetic Switching	<b>Jeffrey Bokor</b>
	Progress on Spin-Orbit Torque Switching Using Topological Effects	<b>Xiang Li</b>
	Spin Currents in Amorphous Materials	<b>Sayeef Salahuddin</b>
	Open Discussion	
<b>2:25 PM</b>	<b>Break</b>	
<b>2:45 PM</b>	<b>Theme III: Nanophotonics</b>	
	Theme III Overview	<b>Ming Wu</b>
	Progress on Antenna-Enhanced LEDs	<b>Ming Wu</b>
	Progress on Antenna Waveguide Coupling	<b>Nicolas Andrade</b>
	Progress on III-V Hetero Epitaxy	<b>Jeewan Kim</b>
	Open Discussion	



# Retreat Agenda: Day 1 (afternoon) *continued*

Time	Activity / Topic	Speakers
4:00 PM	<b>Walk to <u>Faculty Club</u></b> ( <i>E3S Industry Partners and Faculty</i> ) or <b><u>Sutardja Dai Hall</u></b> ( <i>E3S Students and Postdocs</i> )	
4:30 PM	<b>Parallel Sessions:</b> <ul style="list-style-type: none"><li>— E3S Faculty and Industry Partners: Feedback &amp; Discussion Meeting (Lewis Room, Faculty Club)</li><li>— Students and Postdocs: Professional Development Workshop (Room 250, Sutardja Dai Hall)</li></ul>	
6:00 PM	<b>Wine Reception, Dinner and Recognitions (Faculty Club)</b>  Heyns Room (Faculty Club)	



# Retreat Agenda: Day 2, Friday, September 20

Time	Activity / Topic	Speaker / Facilitator
7:30 AM	<i>Breakfast</i>	
8:00 AM	<b>Center Management</b>	
	Management, Budget, Preparing for September 2020	<b>Michael Bartl</b>
	Open Discussion	
8:30 AM	<b>Education and Diversity</b>	
	Education Overview	<b>Nicole McIntyre</b>
	Diversity Overview	<b>Kedrick Perry</b>
	Open Discussion	
	Diversity Training/Workshop	<b>Kedrick Perry</b>
9:45 AM	<i>Break</i>	





# Retreat Agenda: Day 2 (morning), *continued*

Time	Activity / Topic	Speaker / Facilitator
10:00 AM	<b>E3S Education Legacy</b>  Breakout Sessions Reporting from Breakout Sessions Open Discussion	<b>Nicole McIntyre, Michael Bartl</b> (Moderators)
11:25 AM	<b>Closing Remarks</b>	<b>Eli Yablonovitch</b>
11:30 AM	<b><i>Lunch (boxed)</i></b>	
11:30 AM	<b>Executive Committee ONLY</b> <b>ExComm Meeting (1 hour)</b>	

