



## **NPI closes out 2017 with release of intense ultrafast lasers report and quantum momentum; begins planning for congressional visits in April 2018.**

On behalf of the National Photonics Initiative (NPI) I want to wish everyone a Happy New Year! Looking back, I am pleased to say that the NPI successfully advanced the optics and photonics agenda in Washington this past year, and I am confident that 2018 will prove to be equally successful.

I wanted to take a moment to share some highlight from the final quarter of 2017 as well as a word about joining the NPI for meetings on Capitol Hill April 24 and 25 – save the date.

### **NPI Partners with the National Academies of Sciences to Release New Intense Ultrafast Lasers Report**

On December 6, 2017 the [NPI applauded the release of a National Academies of Sciences \(NAS\) report](#) entitled [“Opportunities in Intense Ultrafast Lasers: Reaching for the Brightest Light”](#) that was conducted at the request of the Department of Energy, the Office of Naval Research and the Air Force Office of Scientific Research to evaluate the current state of and future opportunities for high intensity ultrafast lasers and laser technologies, and assess the value of future high intensity laser science programs and facilities to the nation’s scientific research, security and economy. The report recommends several steps our nation can take to regain its leadership position which has waned in recent years to Asia and Europe, and lays out a roadmap for investment in high intensity laser infrastructure in the US.

At the well-attended event on December 14 at the NAS Keck Center in Washington, DC, the NPI hosted a panel of experts who briefed attendees on the report and its recommendations. Panelists included NPI Steering Committee member and Committee on Opportunities in the Science, Applications, and Technology of Intense Ultrafast Lasers Chair Phil Bucksbaum, Stanford University/SLAC National Accelerator Laboratory; Tom Katsouleas, University of Virginia; Patricia Dehmer, DOE Office of Science (retired); Peter Moulton, Lincoln Laboratory, Massachusetts Institute of Technology; and, Ruxin Li, Shanghai Institute of Optics and Fine Mechanics (via video). The panel was moderated by Roger Falcone, University of California at Berkeley/Lawrence Berkeley National Laboratory, and remarks were also made by David Lang, NAS; Eugene Arthurs, SPIE, the international society for optics and photonics (SPIE); and Elizabeth Rogan, The Optical Society (OSA). Please click [here](#) to watch video segments from the briefing.

In conjunction with briefing and reception, Phil Bucksbaum and Peter Moulton briefed key congressional staff including the House Science Committee, Senate Commerce Committee and the House Armed Services Committee on the report and its recommendations. The report charged universities, laboratories and commercial communities in laser technology to increase their cooperation, and coordinate with the funding agencies in order to advance intense ultrafast lasers in the United States. More to come on progress towards advancing these goals.



### **Pushing for a National Quantum Initiative in Congress**

Following the NPI's role as a witness in the US House Science, Space and Technology Committee hearing on October 24, 2017 titled, "[American Leadership in Quantum Technology](#)," our quantum leaders Chris Monroe (University of Maryland) and Mike Raymer (University of Oregon) have continued to move forward optics and photonics interests in a National Quantum Initiative (NQI).

In recent months, both Mike and Chris along with staff leads for the NPI have been socializing the NPI's recommendations with large and small companies who have a stake in quantum, and have been in conversations with key agency players like NIST to discuss our mutual interests. Additionally, Chris was on the Hill in December meeting with the Maryland congressional delegation to gain local support for the NPI's proposal. Throughout, the NPI has remained in close contact with the House Science Committee and in the coming weeks, will be working to draft legislative language that we would like to see included in a possible bill. Given the vast amount of congressional interest in quantum, we foresee a busy yet

productive year ahead on this issue.

## **NPI to Host Capitol Hill Visits on April 25 – Save the Date**

**[Please save the date and register now to attend!](#)**

This year, the NPI will celebrate its 5th anniversary – a milestone that because of you, is met with much success. In celebration of our accomplishments and in support of our ongoing efforts to push for increased recognition of and investment in optics and photonics, the NPI is pleased to be hosting visits to Capitol Hill offices on Wednesday, April 25 with a training session the afternoon of Tuesday, April 24. Please save the date and register now to attend!



*NPI participants meet with Rep. Charles Dent (R-PA)*

While it is still not clear whether an infrastructure bill will be proposed in 2018, the Trump Administration views it as a top priority and we are seeing an increase in congressional hearings and proposals on infrastructure topics. We expect that if an infrastructure bill is to get traction, it will need to happen quickly as this is an election year and legislative activity will slow down as the campaign calendar moves toward the summer.

As we all know, optics and photonics can greatly enhance existing, new and future infrastructure – whether for improving safety, security and/or US economic and technological leadership. This extends to optical sensing for structural infrastructure; broadband for communications and IT infrastructure; and quantum technologies as the future of computers, networks and sensors, among other applications.

We view infrastructure as a near-term opportunity for mutual agreement and an area where optics and photonics has a good story to tell. For these reasons, we hope to focus on optics and photonics infrastructure applications during our upcoming visits to Capitol Hill, and target both majority and minority staff for the key committees of jurisdiction over infrastructure in addition to personal offices.

Whatever your professional focus may be, there is likely an infrastructure application. Please join us in showcasing these examples to our members of Congress and their staff during congressional visits on April 25 in Washington. More information on the agenda and meeting messaging will be shared shortly.



*Barbara Darnell, Rep. Joe Kennedy (D-MA),  
Viktor Podolskiy, and Judith Birkenfeld*

It was a thrilling conclusion to 2017 as new doors were opened and priorities defined. We thank you – our volunteers in the optics and photonics community – for your support and we hope to see you in

Washington in April. To learn about becoming more involved in the NPI's efforts, visit [www.lightourfuture.org](http://www.lightourfuture.org) or contact Laura Kolton at 202.416.1499 or Krisinda Plenkovich at 360.483.8786.

Sincerely,



---

Ed White, Chair, National Photonics Initiative

