

Division on Engineering and Physical Sciences Board on Physics and Astronomy

Committee on Atomic, Molecular, and Optical Sciences

May 20-21, 2024

Hybrid meeting - Academies Keck Center, Room 101

DAY 1 - May 20, 2024 (Times are in Eastern Time)

OPEN SESSION

https://nasem.zoom.us/j/98531189870?pwd=eGhCclczN1pjczFzbGtac05XN1BpQT09

Or Call (669) 219 2599 (San Jose) / (646) 558 8656 (New York) Meeting ID: 985 3118 9870 / Password: 698034

| | • | Meeting ID. 363 3116 3670 | |
|-----------------------------|---|---------------------------------------|-------|
| Prem Kumar, CAMOS Co-Chairs | Mette Gaarde a | Welcome and Meeting Objectives | 10:30 |
| Jun Ye, JILA | Review of AMO2020 25 min presentation + 15 min Q&A Jun Y | | 10:45 |
| Alex Cronin, NSF | NQI's Impact on AMO 25 min presentation + 15 min Q&A | | 11:25 |
| | | Break | 12:05 |
| Matthias Kling, Stanford | Attosecond Science Talk [exact title TBD] 25 min + 15 min Q&A | | 12:20 |
| Tom Settersten, DOE | DOE Perspective 25 min presentation + 15 min Q&A | | 1:00 |
| Alex Cronin, NSF | NSF Perspective 25 min presentation + 15 min Q&A | | 1:40 |
| | | Break | 2:20 |
| Boyan Tabakov, AFOSR | AFOSR Perspective 25 min presentation + 15 min Q&A | | 2:35 |
| (see below*) | Federal Agency Discussion 5 min introductions + Q&A | | 3:15 |
| | | Open Session Ends, Break | 4:30 |
| | SION | CLOSED SES | |
| | | Committee discussion | 4:45 |
| | | Adjourn for day | 7:30 |

* Expected Federal Agency Discussion Participants

- **Alex Cronin, NSF**
- Tom Settersten, DOE
- Boyan Tabakov, AFOSR
- Roberto Diener, ONR
- John Kitching, NIST
- John Burke, DoD-OSD

STATEMENT OF TASK

The National Academies of Sciences, Engineering, and Medicine will appoint the Committee on Atomic, Molecular, and Optical Sciences (CAMOS) to support scientific progress in atomic, molecular, and optical sciences and to assist the federal government in planning programs in these fields by providing advice on the implementation of decadal survey recommendations. CAMOS provides an independent, authoritative forum for identifying and discussing issues in atomic, molecular, and optical sciences among the research community, the federal government, and the interested public, thereby serving as a unifying force in this diverse and varied field.

CAMOS's scope also includes appropriate cross-disciplinary areas and consideration of budget and programmatic aspects of the implementation of the decadal survey undertaken by federal agencies.

CAMOS will assess progress on the most recent decadal survey of the field, and monitor the progress of its recommended priorities and critical scientific and technical activities.

When requested by a funding agency and as approved by the National Academies in accordance with National Academies procedures, CAMOS may be asked to write reports to address an issue associated with the Decadal report to provide agencies with timely advice on agency progress and implementation. After a new, separate statement of task is approved, CAMOS will gather evidence and produce a consensus report. The report may address key strategies being pursued by the agencies and the status of agency actions that relate to the state of decadal report implementation. Reports may also highlight scientific discoveries and engineering and technical advances relevant to progress on the science objectives identified in the most recent decadal survey. In addition, the reports may focus on one or more of the following types of issues:

- The scientific impact of a change in the technical and engineering design, cost estimate, schedule, or programmatic changes of one or more of the survey-recommended activities;
- The impact of a scientific advance on one or more survey-recommended activities;
- If applicable, the scientific impact of implementing recommendations from a mid-decadal review and other relevant Academies' reports.