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## LaserNetUS: opportunities for the AAC community [BALLROOM]

*Thursday, 25 July 2024 11:30 (30 minutes)*

LaserNetUS was launched in 2018, with a mission to advance and promote intense ultrafast laser science and applications. Since its inception, the network has transformed the landscape of high-power and high-intensity laser research, and it has grown into a community of over 1300 users. Additionally, it promotes worldwide collaborations and provides scientists, students, and underrepresented communities with broad access to unique facilities and enabling technologies. LaserNetUS has gone through 6 cycles of open calls for proposals, and over 130 unique experiments have been successfully executed across the network. Following on the success of LaserNetUS, other networks, such as beamNet, are launched to stimulate scientific discovery.

This talk will present LaserNetUS and scientific achievements across its 13 facilities over the first five years of operation, with particular emphasis on topics relevant for the AAC community. The breadth of laser parameters in pulse energy (from sub-Joule to a few kilojoules), pulse duration (from about 10 femtoseconds to 10s of nanoseconds) and repetition rate (up to 10 Hz) have enabled unique discoveries and applications in plasma-based particle acceleration, high energy density science, fusion energy, magnetic field generation, and plasma diagnostics. The talk will further present perspectives on the future of the network and how it can continue to stimulate high impact science in plasma physics, as well as in other scientific disciplines, medicine or industry.

### Working group

invited speaker

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