

## **Dr. Chris Barty, Lawrence Livermore National Laboratory**

### ***Bio***

Dr. Chris Barty is the chief technology officer for the NIF & Photon Science directorate at LLNL. His academic background includes Ph.D. and M.S. degrees in Applied Physics from Stanford University and a B.S. degree in Chemistry, Physics, and Chemical Engineering from North Carolina State University. Before his arrival at LLNL in 2000, Dr. Barty had been director of laser science for a privately funded research organization at the University of California, San Diego; director of advanced technology for a Silicon Valley laser company; and a member of the Applied Physics and Electrical Engineering faculty at Stanford University. At LLNL, Dr. Barty has served as the chief scientist for the Laser Science and Technology program and was the architect and the first program director of the mission-based Photon Science and Applications program. He has published more than 200 manuscripts and presented over 200 invited talks on lasers, optics, materials science, medicine, chemistry, engineering, and physics. Dr. Barty is currently co-chair of the International Committee on Ultrahigh Intensity Lasers, and he was elected a fellow of the Optical Society of America for his pioneering work on intense short-pulse lasers and x-ray applications.

### ***Abstract***

#### **The Explosion of Intense Laser Activities Around the World and Related PW Activities at LLNL**

A recent study by the International Committee on Ultrahigh Intensity Lasers ([www.icuil.org](http://www.icuil.org)) has revealed that over the next 5 years, the worldwide investment in ultrahigh intensity laser facility development will exceed \$4B, potentially involve more than 1500 scientist and engineers and will increase by an order of magnitude the worldwide capabilities for the pursuit of ultrahigh intensity laser science and applications. This talk will review the existing and planned facilities and activities represented by the ICUIL world map and introduce related petawatt activities at LLNL.