Stanford

# Barry T. Fishler

Research Technical Manager, SLAC National Accelerator Laboratory

## Bio

### BIO

Barry Fishler is the division leader for LCLS' Experiment Control Systems (ECS). He has over 25 years of experience in safety-related software and systems engineering for complex computing systems. In 1997, he obtained a bachelor's degree in computer engineering from the University of Victoria. Early in his career, he conducted integration and acceptance testing for an advanced automated air traffic control system. In 2003, he moved to California to work at the National Ignition Facility (NIF) at LLNL, where he eventually became the Integrated Computer Control System manager, leading the control system software organization for NIF. In 2015, he earned a graduate certificate in System Design and Management from the Massachusetts Institute of Technology. Since then, he has led teams in the successful delivery of distributed control systems for rep-rated and CW laser systems at LLNL. Additionally, he has served as LLNL's control system lead and CAM for the petawatt-class rep-rated laser for SLAC's MEC-Upgrade project.

### CURRENT ROLE AT STANFORD

Experiment Control Systems (ECS) Division Leader, Linac Coherent Light Source (LCLS)

Controls Software Working Group Co-chair, SLAC National Accelerator Laboratory

### EDUCATION AND CERTIFICATIONS

- B. Eng., University of Victoria , Computer Engineering (1997)
- Cert., University of California, Los Angeles , Technical Management Program (2012)
- Grad. Cert., Massachusetts Institute of Technology , System Design and Management (2015)

### LINKS

- ECS External Site: https://confluence.slac.stanford.edu/display/PCDS/ECS+Home
- My LinkedIn Profile: https://www.linkedin.com/in/barryfishler/

## Publications

### PUBLICATIONS

- **Conceptual Design of the Matter in Extreme Conditions Upgrade (MEC-U) Rep-Rated Laser Control System** *ICALEPCS*
  Fishler, B.
  2023
- **Sustaining the National Ignition Facility (NIF) Integrated Computer Control System (ICCS) Over it's Thirty Year Lifespan** *ICALEPCS*
  Fishler, B.
  2017
- **Rapid Software Prototyping Into Large Scale Control Systems** *ICALEPCS*

Fishler, B.
2013

- **High repetition rate, high energy petawatt laser for the matter in extreme conditions upgrade**
  Reagan, B. A.
  2023
- **High Energy, 10 Hz Repetition Rate, Petawatt Laser for the Matter in Extreme Conditions Upgrade** *CLEO: Science and Innovations 2023*
  Reagan, B., et al
  2023
- **Lawson Criterion for Ignition Exceeded in an Inertial Fusion Experiment.** *Physical review letters*
  Abu-Shawareb, H., Acree, R., Adams, P., Adams, J., Addis, B., Aden, R., Adrian, P., Afeyan, B. B., Aggleton, M., Aghaian, L., Aguirre, A., Aikens, D., Akre, et al
  2022; 129 (7): 075001
- **PhotonScience Controls: A Flexible and Distributed LabVIEW Framework for Laser Systems** *ICALEPCS*
  Davis, B.
  2021
- **In-Place Technology Replacement of a 24x7 Operational Facility: Key Lessons Learned and Success Strategies from the NIF Control System Modernization** *ICALEPCS*
  Fedorov, M.
  2019
- **High-energy (>70 keV) x-ray conversion efficiency measurement on the ARC laser at the National Ignition Facility** *PHYSICS OF PLASMAS*
  Chen, H., Hermann, M. R., Kalantar, D. H., Martinez, D. A., Di Nicola, P., Tommasini, R., Landen, O. L., Alessi, D., Bowers, M., Browning, D., Brunton, G., Budge, T., Crane, et al
  2017; 24 (3)
- **LEVERAGING SPLUNK FOR CONTROL SYSTEM MONITORING AND MANAGEMENT** *16th Int. Conf. on Accelerator and Large Experimental Control Systems*
  Fedorov, M.
  2017
- **Shot Rate Improvement Strive for the National Ignition Facility (NIF)** *ICALEPCS*
  Brunton, G.
  2015
- **The Advanced Radiographic Capability, a Major Upgrade of the Computer Controls for the National Ignition Facility**
  Brunton, G.
  2013
- **Automatic Alignment of the Advanced Radiographic Capability for the National Ignition Facility** *ICALEPCS*
  Wilhelmsen, K.
  2013
- **Status Of The National Ignition Facility (NIF) Integrated Computer Control And Information Systems** *ICALEPCS2013*
  Lagin, L.
  2013
- **Demonstration of Ignition Radiation Temperatures in Indirect-Drive Inertial Confinement Fusion Hohlraums (vol 106, 085004, 2011)** *PHYSICAL REVIEW LETTERS*
  Glenzer, S. H., MacGowan, B. J., Meezan, N. B., Adams, P. A., Alfonso, J. B., Alger, E. T., Alherz, Z., Alvarez, L. F., Alvarez, S. S., Amick, P. V., Andersson, K. S., Andrews, S. D., Antonini, et al
  2011; 106 (10)