

Yuelin Li

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ACHIEVEMENTS

- Leading frontier research on laser plasma accelerators (2006-2008)
- Developed various schemes for laser pulse shaping for next generation light sources (2006-2008)
- Developed schemes for various radiation and particle sources based on laser-beam interaction (2005-2006)
- Ground-breaking experimental statistic optics using free electron laser (2001-2004)
- Leading research in laser plasma X-ray lasers and laser plasma interactions (1991-1999)

Professional Experiences

Accelerator Systems Division, Argonne National Laboratory (ANL), Argonne, Illinois

2002-present

Research

Physicist

Application of laser techniques in accelerators,

- Photoinjector simulation with 3D laser pulse shaping

2000-2002

- Large scale laser plasma accelerator simulation

Assistant

- Radiation and particle sources based on laser-beam interaction

Physicist

- Experimental physics of free-electron lasers and femtosecond statistic optics

Funding

- co-PI, Beam control for energy recovery linacs: dynamics and diagnostics (ANL LDRD), \$ 150 k, 2007
- co-PI, Injector for energy recovery linac (ANL LDRD), \$300 k, 2007
- PI, Large scale simulation of laser plasma interaction at relativistic intensity (ANL LDRD), \$ 450 k, 2006-2008
- PI, Advanced Photon Source photoinjector upgrade (APS project), \$ 420 k, 2005 -
- PI and co-PI, Laser plasma accelerator in the bubble regime (ANL LDRD), \$ 250 k, 2007
- PI/co-PI, Laser techniques in accelerators (ANL LDRD), \$ 420 k, 2004-2006
- co-PI, Investigation of coherent synchrotron radiation effects on bunch-compresses bright electron beams (ANL LDRD), \$ 50 k, 2006
- co-PI, Development of the advanced beam diagnostics test bed at APS (ANL LDRD), \$50k, 2006

Collaboration

- Fermi National Accelerator Facility, Northern Illinois University, Stanford Linac Accelerator Center, Brookhaven National Laboratory, Shanghai Institute of Optical and Fine Mechanics, Tech-X Corp, Duke University

Lawrence Livermore National Laboratory (LLNL), California

Visiting Scientist

12/1997-

Research

11/1999

- Intense, table-top coherent light source research and development

Funding

- Co-PI on LDRD, ~\$500 k, 1998-1999

Institute for Physical Science and Technology, University of Maryland, Maryland

Research Associate

12/1996-

Research

11/1997

- Laser particle acceleration and compact x-ray light sources

Institut für Optik und Quantenelektronik, Friedrich-Schiller Universität, Germany

Visiting Scientist

07/1996- **Research**

11/1996 • Table-top coherent X-ray sources

Max-Planck Institut für Quantenoptik, Germany

Alexander von Humboldt and Max-Planck Society Fellow

06/1993- **Research**

02/1996 • Experiments on physics of laser-matter interactions and X-ray lasers

Central Laser Facility, Rutherford-Appleton Laboratory, England

Royal Society Fellow

02/1993- **Research**

05/1993 • Experiment and simulation of plasma X-ray lasers

Shanghai Institute of Optics and Fine Mechanics, China

Assistant Research Professor

03/1991- **Research**

11/1996 • Physics of laser-matter interactions and laser plasma based X-ray lasers

Education

09/1986- **Doctorate in Optical Physics**

03/1991 Shanghai Institute of Optics and Fine Mechanics, Chinese Academy of Sciences,

09/1982- **Bachelor of Science**

06/1986 Peking University, Beijing, China

Honors

03/1995- **Max-Planck Society Fellowship**, Germany

02/1996

06/1993- **Alexander von Humboldt Fellowship**, Germany

02/1995

02/1993- **Royal Society Fellowship**, England

05/1993

05/1992 **Distinguished Young Scientist**, Shanghai Branch of Chinese Academy of Sciences, China

12/1991 **President Award for Graduate Students**, Chinese Academy of Sciences, China

Other Professional Activities

Referee for Physical Review Letters, Physical Review, Optics Letters, Optical Express, Journal of The Optical Society of America, Applied Physics B, etc

2004- Marquis Who's Who in Science and Engineering.

2004-2005 Technical Committee of LCLS drive laser system, SLAC, Stanford University

2007- Invited to teach a course at the United States Particle Accelerator School on "Application of Lasers to Accelerators" during the summer 2008 session.

Language

Chinese Native tongue (Mandarin)

English Proficient in writing and speaking

German Basic reading and conversation