

## BIOGRAPHICAL SKETCH

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**Position Title:** Associate Professor

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### EDUCATION

12/83-8/87: Ph.D. Physics, University of South California, William Cooke, advisor

8/82-12/83: M.A. Physics, University of South California

8/78-8/82: B.S. Physics, University of South California, Summa Cum Laude

### PROFESSIONAL EXPERIENCE

08/03-06/06: Vice Chair Undergrad, Phys., OSU

9/98-present: Assoc. Prof. of Physics, OSU

9/92-9/98: Asst. Prof. of Physics, OSU

7/90-9/92: Staff Physicist, Livermore Natl. Lab

6/89-6/90: Res. Assoc. Fac. Univ. of MD

6/87-5/89: Postdoctoral Tech., AT&T Bell Labs

### RELEVANT PUBLICATIONS

1. "Effect of Laser Intensity on Fast-Electron-Beam Divergence in Solid-Density Plasmas," Green, J. S., V. M. Ovchinnikov, R. G. Evans, K. U. Akli, H. Azechi, F. N. Beg, C. Bellei, R. R. Freeman, H. Habara, R. Heathcote, M. H. Key, J. A. King, K. L. Lancaster, N. C. Lopes, T. Ma, A. J. MacKinnon, K. Markey, A. McPhee, Z. Najmudin, P. Nilson, R. Onofrei, R. Stephens, K. Takeda, K. A. Tanaka, W. Theobald, T. Tanimoto, J. Waugh, L. Van Woerkom, N. C. Woolsey, M. Zepf, J. R. Davies and P. A. Norreys, Physical Review Letters **100** 015003 (2008).
2. "Fast Electron Generation In Cones With Ultra-Intense Laser Pulses," L. Van Woerkom, K.U. Akli, T. Bartal, F.N. Beg, S. Chawla, C.D. Chen, E. Chowdhury, R.R. Freeman, D. Hey, M.H. Key, J.A. King, A. Link, T. Ma, A.J. MacKinnon, A.G. MacPhee, D. Offermann, V. Ovchinnikov, P.K Patel, D.W. Schumacher, R.B. Stephens, Y.Y. Tsui, *Physics of Plasmas*, **15** 056304 (2008).
3. "Laser heating of solid matter by light-pressure-driven shocks at ultra-relativistic intensities," K. U. Akli, S. B. Hansen, A. J. Kemp, R. R. Freeman, F. N. Beg, D. C. Clark, S. Chen, D. Hey, S. Hatchett, K. Highbarger, E. Giraldez, J. Green, G. Gregori, K. Lancaster, T. Ma, A. J. MacKinnon, P. Norreys, N. Patel, P. K. Patel, C. Shearer, R. B. Stephens, C. Stoeckl, M. Storm, W. Theobald, L. Van Woerkom, R. Weber, and M. H. Key. *Physical Review Letters*, **100** 165002 (2008).
4. "Studies on the transport of high intensity laser-generated hot electrons in cone coupled wire targets," J.A. King, M.H. Key, K.U. Akli, R.R. Freeman, J. Green, S.P. Hatchett, D. Hey, P. Jamangi, J. Koch, K.L. Lancaster, T. Ma, A.J. MacKinnon, A. MacPhee, R. Mason, P.A. Norreys, P.K. Patel, T. Phillips, R. Stephens, W. Theobald, R.P.J. Town, L. Van Woerkom, B. Zhang, F.N. Beg, *Physics of Plasmas*, **16** 020701 (2009).
5. "Bremsstrahlung and  $K_{\alpha}$  fluorescence measurements for inferring conversion efficiencies into fast ignition relevant hot electrons," C. D. Chen, P. K. Patel, D. S. Hey, A. J. Mackinnon, M. H. Key, K. U. Akli, T. Bartal, F. N. Beg, S. Chawla, H. Chen, R. R. Freeman, D. P. Higginson, A. Link, T. Y. Ma, A. G. MacPhee, R. B. Stephens, L. D. Van Woerkom, B. Westover, and M. Porkolab, *Physics of Plasmas*, **16** 082705 (2009).

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### **SYNERGISTIC ACTIVITIES**

American Physical Society, and Optical Society of America; graduate & undergraduate teaching in plasma physics, optics and lasers

### **COLLABORATORS FOR THE PRECEDING 48 MONTHS**

Listed in author lists above

### **GRADUATE AND POSTDOCTORAL ADVISORS**

William E. Cooke, thesis advisor (William & Mary College)

Richard R. Freeman, postdoctoral advisor (The Ohio State University)

### **GRADUATE AND POSTDOCTORAL ADVISEES**

Current graduate students at OSU: Anthony Link, John Morrison, Vladimir Ovchinnikov, Elijah Kemp, Andy Krygier, Justin Young, Chris Willis.

Postdocs: Enam Chowdhury (Ph.D., Univ. of Delaware; postdoc @ OSU, now laser scientist OSU);

Past students: Rebecca (Weber Daskalova) (Laser Scientist @ OSU), Dustin Offermann (postdoc at LANL), Patrick Randerson (Ph.D. OSU, analyst CIA), Glen Gillen (Ph.D OSU, faculty California Polytechnic State University), Mark Walker (Ph.D. OSU, staff scientist Wright-Patterson Air Force Base), Matt Whitaker (M.S. OSU, staff Wright-Patterson Air Force Base).