

Stan Lippmann, Ph.D., J.D.

Shoreline, WA (206) 201-2499 • stan.lippmann@gmail.com • Skype stanley.lippmann

Education

B.S., Physics, New York University (1981).

M.A., Physics, Johns Hopkins University (1984).

Ph.D., Physics, Johns Hopkins University (1989).

J.D., University of Washington (1998).

Technical Work Experience

2008-2010 Sr. Scientist: Institute for Environmental Health (IEH Labs), Lake Forest Park, WA.

- Developed flash UV sterilization techniques applied to meat products.
- Designed and build portable UV/visible spectrometer into PC-based portable industrial 3D-imaging reflectometry system using CAD/CAM.
- Spectrometer and mirror galvanometer controllers: TI Piccolo 32-bit TMS320F28028. PC software in C++, Python, JavaScript.
- Developed a hand-held reflectometer using 42 different colored LEDs.

1995-1996 Summer Associate: Lawrence Livermore National Labs, Livermore, CA.

- High-Z atomic modelling using HULLAC (Hebrew University Lawrence Livermore Atomic Code).
- Theory group glue-logic using Perl/Tcl Expect.

1989-1994 Sr. Scientist: General Atomics, La Jolla, CA.

- Impurity diagnostics using extreme UV spectrometers, using high voltage multichannel plates and ultra-high vacuum high speed mirror scanning system.
- Monte Carlo particle simulation in fusion relevant plasmas.
- SGI GL programming in C. IDL-based data acquisition, and analysis. MATLAB spectral analysis.
- Visiting scientist for Government of France, Tore-Supra tokamak near Aix-en-Provence.

1982-1989 Research Assistant:

- Extreme UV spectrometer development with high voltage detectors, ultra-high vacuum mechanical dual scanning mirror system.

Managerial Work Experience

2010 Assistant Field Operations Supervisor, US Census 2010.

- Audited the work of 330 Census Enumerators without any errors to the Clerk.

2001-2008 Entrepreneur

- Managed staff for 3 businesses, Silq Networks (ISP), Executive Business Center (Business Services), Lippmann Law Firm.

Teaching Experience

Modern English School, New Cairo, Egypt. (2016-2017).

- A-Level Physics, IGCSE Physics, IBDP Physics.

Nanshan Chinese International College, Nanshan, Shenzhen, Guangdong, PRC. (2014-2016).

- A-Level Physics, A-Level Maths (M1), IGCSE Information and Communication Technology (ICT).including: Word, Excel, PowerPoint, Access and SQL, Web development.

Shandong Experimental High School, Jinan, Shandong Province, PRC. (2013-2014).

- AP Physics, Pre-AP Physics, Spanish.

Beijing Foreign Studies University (BFSU), Beijing, PRC. (2012-2013).

- K-12 English as a Second Language.

Johns Hopkins University (1989-1991).

- Teaching Assistant for Physics I, II, III Lecture and Laboratory.

University of Washington (1996).

- Teaching Assistant for Center for the Advanced Study of Intellectual Property (CASRIP).

Massachusetts Department of Elementary and Secondary Education Preliminary License (Physics 8-12).

Foreign Languages

Spanish and French, basic Mandarin.

Entrepreneurial Experience

2001-2008 Proprietor: Silq Networks, Seattle, WA.

- Provided Internet services for multi-tenant dwellings.
- Cisco IOS, Nortel VLANs, SonicWall.
 - Projects in Puyallup, Lacey, and Seattle.

2002-2005 Proprietor: Executive Business Center, 4500 9th Ave NE, Seattle, WA.

- Provided support services for small businesses, including office space, receptionist, and telecom.
 - Installed/Managed Nortel PBX's.
 - Tripled size of business in 3 years, from 3300 to 10,000 sq. ft.

Legal Experience

2000-2008 Attorney: Lippmann Law Firm, 122 S. Washington St., Seattle, WA.

- General Civil Litigation, including Employment, Contract, Family, Telecommunication, and Election Law.
- Restored Pioneer Square Property into live/work space for Lippmann Law Firm.

List of Publications

Over 40 scientific publications in Physics and Astronomy, including:

1. Lippmann, S., Fournier, K.B., Observation of O V $n=3-3$ Transitions in a Tokamak Plasma, *Physical Review E (Statistical Physics, Plasmas, Fluids, and Related Interdisciplinary Topics)*. vol.51, no.5, pt.B. pp. 5139-42. May 1995
2. Lippmann, S.I.; Evans, T.E.; Jackson, G.L.; West, W.P. Impurity penetration and transport during VH- mode on DIII-D. (Tenth International Conference on Plasma-Surface Interactions in Controlled Fusion Devices, Monterey, CA, USA, 30 March-3 April 1992). *Journal of Nuclear Materials*, 1992, vol.196- 198:498-502.
3. Lippmann, S., Mahdavi, A., Roth, J., Krieger, K, Janeschitz, G. Retention of Gaseous Impurities in the Divertor of DIII-D (Proceedings, 18th European Conference on Controlled Fusion and Plasma Physics Berlin, 1991, Vol. 15C pg. III-201)
4. Lippmann, S.; Finkenthal, M.; Moos, H.W.; McCool, S.C.; and others. Effects of an ergodic magnetic limiter on the edge plasma properties of the TEXT tokamak. *Nuclear Fusion*, Nov. 1991, vol.31, (no.11):2131-40.
5. Lippmann, S., Finkenthal, M., Moos, W. Determination of poloidal variation of the electron temperature and density in a tokamak plasma using VUV spectroscopy. *Physica Scripta*, April 1990, vol.41, (no.4):506-9.
6. Lippmann, S. Finkenthal, M., Huang, L.K., Moos, H.W., and others. Laboratory Study of the Spectrum of Highly Ionized Calcium in the 100-250 Å Range applied to Solar Flare Diagnostics, *Astrophysical Journal*, vol 29, 1987:313
7. Parks, P.B., Lippmann, S.I. Effects of Magnetic Field on the Distribution of Ions Striking a Planar Target *Physics of Plasmas* Dec. 1994, Vol 1,(no.12):3883-89
8. McChesney, J.M., Lippmann, S., Laser-induced Fluorescence Diagnostic for Divertors General Atomics Report GA-A21670 (1994), Review of Scientific Instruments. vol.66, no.1, pt.2. pp. 600-2. Jan. 1995.
9. Fournier, K.B., Finkenthal, M., Lippmann, S., and others. $n=5-5$ Soft x-ray Emission of Uranium in a High-temperature Low-density Tokamak Plasma, *Physical Review A (Atomic, Molecular, and Optical Physics)*, Nov. 1994, vol.50, (no.5):3727-33
10. Finkenthal, M.; Lippmann, S.; Huang, L.K.; Zwicker, A.; and others. O-shell emission of heavy atoms in an optically thin tokamak plasma. *Physical Review A (Statistical Physics, Plasmas, Fluids, and Related Interdisciplinary Topics)*, 15 April 1992, vol.45, (no.8):5846-53.
11. Finkenthal, M.; Lippmann, S.; Huang, L.K.; Moos, H.W.; and others. Delta $n=0$ -shell emission of rare earth ions ($Z=59$ to 70) emitted from low and high density tokamak and laser produced plasmas. *Physica Scripta*, April 1990, vol.41, (no.4):445-8.
12. Finkenthal, M.; Lippmann, S.; Moos, H.W.; Mandelbaum, P. Highly ionized uranium emission in the soft-X-ray region 50-100 Å. *Physical Review A (General Physics)*, 1 April 1989, vol.39, (no.7):3717- 20.
13. Finkenthal, M.; Lippmann, S.; Moos, H.W.; Mandelbaum, P. Narrow bands of soft X-ray radiation emitted by heavy elements Au, Tl, Pb ($Z=79/83$) for X-ray microscopy in the water window. (*X-Ray Instrumentation in Medicine and Biology, Plasma Physics, Astrophysics and Synchrotron Radiation*, Paris, France, 25-28 April 1989). *Proceedings of the SPIE - The International Society for Optical Engineering*, 1989, vol.1140:162-6.
14. Finkenthal, M.; Lippmann, S.; Yu, T.L.; Huang, L.K.; and others. A comparison of the C III, O V, F VI and Ne VII Delta $n=0(2-2)$ line emissions from a laboratory plasma with theoretical predictions and astrophysical observations. *Astrophysical Journal*, 15 Feb. 1987, vol.313, (no.2, pt.1):920-7.
Finkenthal, M.; Lippmann, S.; Huang, L.K.; Yu, T.L.; and others. The spectrum of highly ionized praseodymium and dysprosium from the Texas tokamak plasma in the 50-250-Å range. *Journal of Applied Physics*, 1 June 1986, vol.59, (no.11):3644-9.
15. Huang, L.K.; Lippmann, S.; Stratton, B.C.; Moos, H.W.; and others. Experimental Determination of line-intensity ratios for the $n=3$ to $n=2$ transitions of O V, F VI, and Ne VII at electron densities in a range of $(4-9) \times 10^{21}$ cm⁻³. *Physical Review A (General Physics)*, 15 May 1988, vol.37, (no.10):3927-34.
16. Huang, L.K.; Lippmann, S.; Yu, T.L.; Stratton, B.C.; and others. Experimental determination of line- intensity ratios of transitions within the $n=2$ complex of Be I-like ions (CIXIV to CrXXI). *Physical Review A (General Physics)*, 1 April 1987, vol.35, (no.7):2919-27.
17. Schaffer, M.J.; Lippmann, S.I.; Mahdavi, M.A.; Petrie, T.W.; and others. Particle control in the DIII-D advanced divertor. IN: 14th IEEE/NPSS Symposium. *Fusion Engineering. Proceedings (Cat. No.91CH30355-3)*. (14th IEEE/NPSS Symposium. *Fusion Engineering. Proceedings (Cat. No.91CH30355-3)*, San Diego, CA, USA, 30 Sept.-3 Oct. 1991). New York, NY, USA: IEEE, 1992. p. 197-200.

