

Curriculum Vitae
William Harris Green

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General Information

University address: Physics
College of Arts and Sciences
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Professional Preparation

- 2006 M.B.A., Emory University. Major: Business. *Summa Cum Laude*.
- 1973 Doctoral Degree, Pro, Georgetown University. Major: Law.
- 1967 Doctoral Degree, Aca, University of South Carolina, Columbia, SC. Major: Physical Chemistry. Molecular Spectroscopy. Supervisor: James R. Durig.
- 1963 B.S., University of South Carolina. Major: Chemistry.

Nondegree Education and Training

- 2019 Gordon Research Conference--String theory & Cosmology--Barcelona, Spain.
- 2017 Gordon Research Conference--String Theory & Cosmology--Tuscany, Italy.
- 2009--2011 Cosmology for the Next Generation Series, Berkeley Center for Cosmological Physics.
- 2000 Aspen Winter Workshop, "Frontiers of Particle Physics and Cosmology", Aspen Center for Physics, Aspen, CO.
- 1999 NATO Advanced Study Institute, "Astrofundamental Physics", Erice, Sicily.
- 1997 NATO Advanced Study Institute, "Astrofundamental Physics", Erice, Sicily.
- 1987 NATO Advanced Study Institute, "The Post-recombination Universe",

Cambridge, England.

1986 NATO Advanced Study Institute, "The Galaxy", Cambridge, England.

Professional Experience

- 2011–present Research Professor, Physics, Florida State University.
Area of Interest: Cosmology with emphasis on the physics of inflation and reheating processes.
- 2009–present Of Counsel, Hopping Green & Sams, PA, Tallahassee, FL.
- 2008–2009 Legal/Business Consultant, Berkeley Center for Cosmological Physics.
- 1979–2009 Co-Founder/Shareholder, Hopping Green & Sams, PA, Tallahassee, FL.
Environmental Law Practice.
- 1974–1979 Attorney, Mahoney, Hadlow, Chambers & Adams, PA. Environmental Law Practice.
- 1968–1973 Senior Scientist, U.S. Naval Research Laboratory, Washington, D.C.

Areas of Expertise

Cosmology.
Environmental and Land Use Law.
Laser Physics.
Molecular Energy Transfer Processes.
Molecular Spectroscopy.
Strategic Planning for Projects and Businesses.

Visiting Professorship(s)

- 2010–2011 Visiting Scientist/Scholar, Florida State University.
- 2001–2005 Visiting Scientist, Florida State University.
- 1998 Visiting Scientist, Institute for Nuclear and Particle Astrophysics, Lawrence Berkeley National Laboratory and University of California-Berkeley, Space Science Laboratory: Smoot Cosmology Group--managed undergraduate research on cosmic microwave background. Townes Group-- participated in infrared interferometric research on stellar systems.

1986 Visiting Scholar, Institute of Astronomy, University of Cambridge, UK: under auspices of Sir Martin Rees.

Honors, Awards, and Prizes

Fellow, American College of Environmental Lawyers (2009); Emeritus Fellow 2011 (Other law practice related honors summarized at <http://hgslaw.com/attorney/William-h-green/>).
Fellow, Beta Gamma Sigma (2006).
Trial Term Moot Court, Georgetown University Law Center (1973).
Research Publication of the Year, U.S. Naval Research Laboratory (1972).
Fellow, Sigma Xi (1966).

Fellowship(s)

National Research Council/National Academy of Sciences Postdoctoral Fellow (1967): tenable at U.S. Naval Research Laboratory, Washington, D.C.

Current Membership in Professional Organizations

American Bar Association
American College of Environmental Lawyers
American Physical Society
Florida Bar Association
Royal Astronomical Society, Fellow

Courses Taught

Astrophysics Seminar (AST4218)/Astrophysics Seminar (AST5219):Covered the following special topics in cosmology: (a) How the Friedmann solution to Einstein's GR equation is used to describe the expansion dynamics of the Universe; (b) Scalar field-based inflation and how inflation-generated primordial curvature perturbations lead to and are constrained by temperature anisotropies reflected in the CMB power spectrum; (c) Observational and theoretical bases for Dark Matter and Dark Energy; and (d) Galaxy Formation & Evolution from initial conditions defined by the density fluctuations calculated from the CMB power spectrum, and as evolved in the LSS

Research and Original Creative Work

Publications

Refereed Journal Articles

- Danchi, W. C., Green, W. H., Hale, D. D. S., McElroy, K., Monnier, J. D., Tuthill, P. G., & Townes, C. H. (2001). Proper Motions of Dust Shells Surrounding NML CYGNI. *ApJ*, 555, 405-409.
- Green, W. H., & Hancock, J. K. (1973). Measurement of CO(v=1) vibrational energy transfer rates using a frequency-doubled CO₂ laser. *Jcp*, 59, 4326-4335. doi:10.1063/1.1680629
- Green, W., & Hancock, J. (1973). MA1--Laser-excited vibrational energy transfer studies of HF, CO, and NO. *IEEE Journal of Quantum Electronics*, 9, 50-58. doi:10.1109/JQE.1973.1077296
- Hancock, J. K., & Green, W. H. (1972). Vibrational Deactivation of HF(v=1) in Pure HF and in HF-Additive Mixtures. *Jcp*, 57, 4515-4529. doi:10.1063/1.1678109
- Hancock, J. K., & Green, W. H. (1972). Laser-Excited Vibrational Relaxation Studies of Hydrogen Fluoride. *Jcp*, 56, 2474-2475. doi:10.1063/1.1677555
- Green, W. H., & Lin, M. C. (1971). Pulsed-Discharge-Initiated Chemical Lasers. III. Complete Population Inversion in HF. *Jcp*, 54, 3222-3223. doi:10.1063/1.1675312
- Green, W., & Lin, M. (1971). Pulsed discharge initiated chemical lasers -- Part II: HF laser emission from NF₃ and N₂F₄ systems. *IEEE Journal of Quantum Electronics*, 7, 98-101. doi:10.1109/JQE.1971.1076601
- Durig, J. R., Willis, Jr., J. N., & Green, W. H. (1971). Spectra and Structure of Small Ring Compounds. XX. Fluorocyclobutane. *Jcp*, 54, 1547-1556. doi:10.1063/1.1675053
- Green, W. H., Harvey, A. B., & Greenhouse, J. A. (1971). Spectroscopic Determination of the Pseudorotation Barrier in Selenacyclopentane. *Jcp*, 54, 850-856. doi:10.1063/1.1675009
- Lin, M. C., & Green, W. H. (1970). Pulsed-Discharge-Initiated Chemical Lasers. I. HF Laser Emission from CHF₂Cl, CHCl₂, CHF₃, and CF₂Cl₂-H₂ Systems. *Jcp*, 53, 3383-3384. doi:10.1063/1.1674498
- Green, W. H. (1970). Ring-Puckering Data from the Mid-infrared. *Jcp*, 52, 2156-2157. doi:10.1063/1.1673271
- Green, W. H., & Whitney, W. T. (1970). Competition Effects in a ¹²C¹⁶O₂+¹³C¹⁶O₂ Laser. *Journal of Applied Physics*, 41, 437-438. doi:10.1063/1.1658372
- Green, W. (1969). The vibrational spectra of 2,5-dihydrothiophene. *Spectrochimica Acta Part A: Molecular Spectroscopy*, 25, 723-730. doi:10.1016/0584-8539(69)80047-4

- Green, W. H. (1969). Ring-Puckering Vibration of 2,3-Dihydrofuran. *Jcp*, 50, 1619-1621. doi:10.1063/1.1671248
- Green, W. H. (1969). Vibrational Spectra and Structure of Four-Membered Ring Molecules. IV. Cyclobutanol, Cyclobutanol-d₁, Cyclobutanol-d₄, and Cyclobutanol-d₅. *Spectrochim. Acta A*, 25, 849-877.
- Green, W. H., & Harvey, A. B. (1968). Vibrational Spectra and Structure of Dimethyl Diselenide and Dimethyl Diselenide-d₆. *Jcp*, 49, 3586-3595. doi:10.1063/1.1670638
- Durig, J. R., & Green, W. H. (1968). Vibrational spectra and structure of four-membered ring molecules 2-Chlorocyclobutanone and 2-chloro-2, 4, 4-trideuterocyclobutanone. *Journal of Molecular Spectroscopy*, 27, 95-109. doi:10.1016/0022-2852(68)90023-4
- Green, W. H., & Harvey, A. B. (1968). Ring-Puckering Vibration of 2,5-Dihydrothiophene. *Jcp*, 49, 177-181. doi:10.1063/1.1669805
- Durig, J. R., & Green, W. H. (1967). Vibrational Spectra and Structure of Four-Membered Ring Molecules. III. Bromocyclobutane, Bromocyclobutane-d₁, Bromocyclobutane-d₄, and Bromocyclobutane-d₅. *Jcp*, 47, 673-691. doi:10.1063/1.1711940
- Durig, J. R., Green, W. H., & Hammond, N. C. (1966). Raman and Far-Infrared Spectra of Some Four-Membered Ring Molecules. *J. Phys. Chem*, 70, 1989-1997.

Invited Reviews

- Aschwanden, M. J., Scholkmann, F., Bethune, W., Schmutz, W., Abramenko, V., Cheung, M. C. M., Muller, D., Benz, A., Chernov, G., Kritsuk, A. G., Scargle, J. D., Melatos, A., Wagoner, R. V., Trimble, V., & Green, W. H. (2018). Order out of Randomness: Self-Organization Processes in Astrophysics. *Space Science Reviews*, 214:55, 1-75. Retrieved from <https://doi.org/10.1007/s11214-018-0489-2> (open access at Springerlink.com).

Service

The Profession

Service to Professional Associations

Fellow, Royal Astronomical Society (1986–present).

Board, Florida Research Consortium (2007–2013).

Board, University of South Carolina Research Foundation (2002–2006).

President, Tallahassee Community College Foundation (1999–2000).

Board, Tallahassee Community College Foundation (1985–2000).

President, Tallahassee Scientific Society (1997–1998).

Vice President, Tallahassee Scientific Society (1994–1997).

The Community

Founding Member, Bradfordville Baptist Church, Tallahassee (1980–present).

Member, Economic Club of Tallahassee (1979–present).

Board, Tallahassee Symphony Orchestra (2004–2011).

Chairman of Deacons, Bradfordville Baptist Church, Tallahassee (1995–1997).