

# Andrew Urban Schroder

Fort Mitchell, KY, USA

+1.859.652.3582

<http://AndySchroder.com>

[info@AndySchroder.com](mailto:info@AndySchroder.com)

## Education

- 2016 **Doctor of Philosophy, Aerospace Engineering**, University of Cincinnati  
Concentration: Thermodynamics and the design and optimization of supercritical carbon dioxide power cycles
- 2011 **Master of Science, Mechanical Engineering**, University of Cincinnati  
Concentration: Heat transfer and fluid mechanics
- 2007 **Bachelor of Science, Mechanical Engineering**, University of Cincinnati

## Licensure

Professional Engineer in the Commonwealth of Kentucky.

## Experience

- 2019–Present *Lead Engineer*  
**Test Facilities Infrastructure Engineering, GE Aviation**, Evendale, OH
- 2017–2019 *STAR-CCM+ and Simcenter 3D Training Content Developer*  
**Siemens PLM Software**, Milford, OH
- 2007–2016 *Mechanical Engineer*  
**Self Employed/Independent Contractor (part time)**, Fort Mitchell, KY
- 2011–2012 *Turbomachinery Researcher*  
**Gas Turbine Simulation Laboratory, University of Cincinnati**, Cincinnati, OH
- 2009–2010 *Convective Heat Transfer Research Fellow*  
**Propulsion Directorate, Air Force Research Laboratory**, Dayton, OH
- 2007–2009 *Whirligig Test Specialist*  
**Mechanical/Controls Component Test Center, GE Aviation**, Evendale, OH
- 2006 *Co-op student*  
**Spacecraft Mechanisms, Naval Research Laboratory**, Washington, DC
- 2005 *Co-op student*  
**Mechanical Engineering Department, Valco Cincinnati**, Cincinnati, OH
- 2004–2005 *Co-op student*  
**Bodyweld Production Engineering, Toyota**, Erlanger/Georgetown, KY

## Publications

- Andrew Schroder. "Determination of Annual Optimal Altitude and Azimuth Angles of Fixed Tilt Solar Collectors in the Continental United States Using the National Solar Radiation Database." Proceedings of the ASES National Solar Conference, May, 2011
- Andrew Schroder. "Experimental and Numerical Study of Impingement Jet Heat Transfer." Master's thesis, University of Cincinnati, May, 2011
- Andrew Schroder, Shichuan Ou, and Urmila Ghia. "Experimental Study of an Impingement Cooling Jet Array Using an Infrared Thermography Technique." Journal of Thermophysics and Heat Transfer, Vol. 26, No. 4 (2012), pp. 590-597.
- Andrew Schroder and Mark Turner. "Mapping the Design Space of a Recuperated, Recompression, Precompression Supercritical Carbon Dioxide Power Cycle with Intercooling, Improved Regeneration, and Reheat." Proceedings of the 4th International Supercritical CO2 Power Cycles Symposium, September, 2014
- Andrew Schroder. "A Study of Power Cycles Using Supercritical Carbon Dioxide as the Working Fluid." Doctoral Dissertation, University of Cincinnati, March, 2016
- Andrew Schroder, Mark Turner, and Rory Roberts. "Combined Cycle Engine Cascades Achieving High Efficiency." Proceedings of the ASME International Gas Turbine Institute Turbo Expo, June, 2016.

## Computer Skills

NX, Pointwise, Fluent, FINE/Turbo, Tecplot, ParaView, Asgard/Visual3, LabVIEW, MATLAB, REFPROP, NumPy/SciPy, matplotlib, openSUSE, Ubuntu, CentOS, Bash, git, HTML, GIMP, Inkscape, Kdenlive.