



REGISTRATION for MODTRAN®6 TRAINING and TUTORIAL

June 6-8, 2018

Boston College School of Law, 885 Centre Street, Newton, MA

<u>Registration Details:</u>	Wednesday, June 6	12:15 PM – 5:30 PM
	Thursday-Friday, June 7-8	8:00 AM – 5:30 PM

Lunch, coffee and snacks will be provided on Wednesday. Continental breakfast (7:45 am), lunch and snacks will be provided on Thursday and Friday.

Registration Fee/Payment

Registration Fee is \$2000.00 per person. Registration form and payment must be received no later than 14 days in advance (May 23) to insure delivery of course materials prior to the class date. Class size is limited to 20. MODTRAN6 must be purchased separately (<http://modtran.spectral.com/>) and loaded onto attendee’s personal computer.

Payments should be made to Spectral Sciences, Inc. via check or credit card.

Attendee Information

Name: _____

Address: _____

City/Zip Code: _____

Email Address: _____

Company: _____

Attendee Signature: _____

Please email or fax your completed registration form to Ms. Deborah Comeau at Spectral Sciences, Inc (SSI). Ms. Comeau is also available to arrange payment for the training or to answer any course logistics or registration questions:

Phone: 781-273-4770 Fax: 781-270-1161 Email: dcomeau@spectral.com.

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Agenda for MODTRAN6 Training and Tutorial – June 6-8, 2018

Wednesday, 06 June 2018

- 12:15 pm Lunch
- 1:00 pm Check-In, Introductions and Set Up
- 1:20 pm **MODTRAN Band Model Transmittance Lecture**
- 3:10 pm Break
- 3:30 pm *MODTRAN6 GUI and a Thermal Test Case*
- 5:30 pm Adjourn

Thursday, 07 June 2018

- 7:45 am Continental Breakfast
- 8:00 am **MODTRAN Correlated-k Lecture**
- 9:30 am Break
- 9:50 am *A Solar Test Case*
- 12:15 pm Lunch
- 1:00 pm **MODTRAN6 API Examples** (Tim Perkins)
- 3:00 pm Break
- 3:20 pm **MODTRAN Radiance Lecture**
- 4:30 pm *An Aerosol Test Case / Aerosol Generator Toolkit*
- 5:30 pm Adjourn

Friday, 08 June 2018

- 7:45 am Continental Breakfast
- 8:00 am *Aerosol Test Case / Aerosol Generator (cont'd)*
- 9:30 am Break
- 9:50 am **MODTRAN6 Line-By-Line Lecture**
- 12:00 pm Lunch
- 1:00 pm *Radiosonde Test Case / Atmospheric Generator*
- 3:00 pm Break
- 3:20 pm *Radiosonde Test Case / AGT (Cont'd)*
- 4:30 pm Questions/Your Specific Scenarios/Discussions
- 5:30 pm Adjourn



Instructors

Dr. Alexander Berk
Spectral Sciences, Inc. (SSI)

Education

Ph.D.	(Physical Chemistry)	University of North Carolina, 1983
B.S.	(Chemistry/Mathematics)	Harvey Mudd College, 1978

Experience

Dr. Berk joined Spectral Sciences, Inc. (SSI) in 1986. In his current role of Principal Scientist, he has served as principal investigator or project manager on many of the SSI radiative transport (RT) projects. His research activities have concentrated on the modeling of atmospheric absorption, scattering, radiance, flux, refraction and remote sensing phenomena in the infrared, visible, and ultraviolet spectral regions. This work has greatly enhanced the accuracy of band model RT and resulted in algorithms that are now standard in AFRL codes. He has served as the lead developer of the MODTRAN atmospheric RT model since its inception over 30 years ago. Most recently, he developed a novel line-by-line capability for MODTRAN, upgraded MODTRAN multiple scattering to incorporate spherical Earth effects, and designed an approach for introducing polarimetric signature prediction into the model. Previously, Dr. Berk developed the RT algorithms in MCScene, SSI's state-of-the-art 3D simulation software for generating synthetic hyperspectral images using Direct Simulation Monte Carlo (DSMC) photon tracking based on MODTRAN-derived optical data.

Timothy Perkins
Spectral Sciences, Inc. (SSI)

Education

M.Eng.	Electrical and Computer Engineering	University of Louisville, 2000
B.S.	Electrical Engineering	University of Louisville, 1999

Experience

Mr. Perkins is a Principal Scientist at Spectral Sciences, Inc. (SSI), where his research activities concentrate on the development of novel image processing and radiometric modeling techniques relevant to remote sensing applications, specifically in the domains of: atmospheric retrieval and compensation, spectral signature analysis, spectral image compression, sensor characterization, and image classification. His efforts include projects related to atmospheric radiative transport, where he currently leads the software development for several of the hyperspectral/multispectral image analysis codes at SSI, including FLAASH-R, an automated implementation of the FLAASH atmospheric correction algorithm, and FLAASH-E, a similar code for operation in the thermal-emissive regime. These projects encompass both performance and scientific enhancements to the atmospheric correction process. Mr. Perkins implemented the current MODTRAN interface and developed the MODTRAN API. He also serves as the technical lead for ongoing research in the field of spectral data compression, and as the lead developer of the QUID (QUick Image Display) signature analysis code, which produces radiometric 3D simulations of physically attributed target models.