REGISTRATION for MODTRAN® 6 TRAINING
May 16-19, 2017
Burlington, Massachusetts

Registration Details:

- Tuesday – Thursday, May 16-18
  8:30 AM – 5:00 PM
- Friday, May 19
  8:30 AM – Noon

Spectral Sciences, Inc.
4 Fourth Avenue
Burlington, MA 01803-3304
Continental breakfast (8:00 am), lunch, coffee and snacks will be provided Tuesday – Thursday;
Continental breakfast, coffee & snacks on Friday.

Registration Fee/Payment

Registration Fee is $2000.00 per person. Registration form and payment must be received 14 days in advance (April 18) to insure delivery of course materials prior to the class date. Class size is limited 16. 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: __________________________________

Return completed registration form, arrange payment for the training and get answers regarding course logistics and registration questions at training@spectral.com using the Subject ‘MODTRAN training’ or contact Deb at phone: 781-273-4770 or fax: 781-270-1161
Syllabus for MODTRAN 6 Training

Tuesday, 16 May 2017
8:00 am  Registration/Breakfast
8:30 am  Introductions and Set Up
8:50 am  MODTRAN Band Model Transmittance Lecture
10:00 am Break
10:20 am MODTRAN6 GUI and a Thermal Test Case
12:20 pm Lunch
1:20 pm  MODTRAN6 GUI and a Thermal Test Case (cont’d)
3:00 pm Break
3:20 pm  MODTRAN Correlated-k Lecture
5:00 pm  Adjourn

Wednesday, 17 May 2017
8:00 am  Breakfast
8:30 am  A Solar Test Case
10:00 am Break
10:20 am  A Solar Test Case (cont’d)
12:20 pm Lunch
1:20 pm MODTRAN Radiance and Multiple Scattering Lecture
3:00 pm Break
3:20 pm  MODTRAN Radiance and Multiple Scattering Lecture (cont’d)
5:00 pm Adjourn

Thursday, 18 May 2017
8:00 am  Breakfast
8:30 am  An Aerosol Test Case and the Aerosol Generator Toolkit
10:00 am Break
10:20 am  An Aerosol Test Case and the Aerosol Generator Toolkit (cont’d)
12:20 pm Lunch
1:20 pm MODTRAN6 API Examples
3:00 pm Break
3:20 pm MODTRAN6 Line-By-Line Lecture
5:00 pm  Adjourn

Friday, 19 May 2017
8:00 am  Breakfast
8:30 am  Radiosonde Test Case
10:00 am Break
10:20 am  Radiosonde Test Case (cont’d)
11:30 am Questions/Discussion
Noon   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, radianc, 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 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.
**Places to stay near SSI:**

<table>
<thead>
<tr>
<th>Hotel Name</th>
<th>Address</th>
<th>Distance from SSI</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Candlewood Suites</td>
<td>130 Middlesex Turnpike</td>
<td>0.4 miles</td>
<td>Typical Rate: $109</td>
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<tr>
<td></td>
<td>Burlington, MA 01803</td>
<td></td>
<td>(781) 229-4300</td>
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<tr>
<td>Marriott Residence Inn</td>
<td>300 Presidential Way</td>
<td>4.5 miles</td>
<td>Typical Rate: $249</td>
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<td></td>
<td>Woburn, MA 01801</td>
<td></td>
<td>(781) 376-4000</td>
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<tr>
<td>Sonesta ES Suites</td>
<td>11 Old Concord Rd.</td>
<td>1.4 miles</td>
<td>Free shuttle to SSI</td>
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<td></td>
<td>Burlington, MA 01803</td>
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<td>Typical Rate: $129</td>
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<tr>
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<td>(781) 221-2233 / (800) 238-8000</td>
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<tr>
<td>Marriott Courtyard,</td>
<td>240 Mishawum Rd.</td>
<td>4.5 miles</td>
<td>Typical Rate: $149</td>
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<tr>
<td>Woburn</td>
<td>Woburn, MA 01801</td>
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<td>(781) 932-3200</td>
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<tr>
<td>Marriott, Burlington</td>
<td>Rt. 128 &amp; 3A Mall Rd.</td>
<td>2 miles</td>
<td>Typical Rate: $179</td>
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<td></td>
<td>Burlington, MA 01803</td>
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<td>(781) 229-6565</td>
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<tr>
<td>Hyatt Summerfield</td>
<td>2 Van de Graaff Dr.</td>
<td>2.3 miles</td>
<td>Typical Rate: $179</td>
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<td>Suites Hotel</td>
<td>Burlington, MA 01803</td>
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<td>(781) 270-0800</td>
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<tr>
<td>Crowne Plaza Boston/Woburn</td>
<td>15 Middlesex Canal Park Rd.</td>
<td>4.7 miles</td>
<td>Typical Rate: $209</td>
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<td>Woburn, MA 01801</td>
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<td>(781) 935-8760</td>
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<tr>
<td>Extended Stay America</td>
<td>831 Main St.</td>
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<td>Hotel</td>
<td>Woburn, MA 01801</td>
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<td>(781) 938-3737</td>
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<tr>
<td>Bedford Plaza Hotel</td>
<td>340 Great Rd.</td>
<td>3.4 miles</td>
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<td></td>
<td>Bedford, MA 01730</td>
<td></td>
<td>(781) 275-6700</td>
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</table>
**Getting to SSI:**

Getting to SSI:

**Google Maps link to SSI**

*Diagram of directions to SSI*

**Directions from Logan Airport:**

Take I-93 North to I-95 South. I-95 is also Route 128.

Take exit 32 off I-95. You will be on a service road. Take the first ramp to Middlesex Turnpike. The Burlington Mall will be to the right. Go right at the bottom of the ramp. The left-turners have a light; you have a Yield sign.

Fourth Avenue is about a mile up Middlesex, at the fourth light, where we do not count the light avoided by the right turn at the end of the ramp.

Turn left on Fourth Ave. SSI is in the first building on the right. Turn into the drive before you would pass the "2-4" sign out front. Park in front. The main entrance is the leftmost of the two entrance arches.

If you are approaching from the South on I-95 North, take exit 32, you will be on a service road, take the 2nd ramp to Middlesex Turnpike and go right at the end of the ramp. Directions are as above, except you will pass through one more set of lights - again, not counting the light for left-turners at the end of the ramp.