CAS Ratemaking and Product Management Seminar

March 19–21, 2012

Philadelphia Marriott Downtown

Philadelphia, Pennysylvania

Seminar Overview

The 2012 Ratemaking and Product Management (RPM) Seminar Planning Committee hopes you will join us in Philadelphia for this three-day event offering educational opportunities on ratemaking, predictive modeling and product management.

The RPM Seminar will provide a forum for actuaries, underwriters, and other insurance professionals to further their continuing education and stay current as professionals with many new sessions on the following topics:

- Data Management
- Commercial Lines
- Personal Lines
- Predictive Modeling
- Professionalism
- Product Management
- Ratemaking Call Papers
- Regulation
- Rate of Return
- Workers Compensation

Four optional full-day workshops will also be offered before the seminar.   A new workshop on R is featured this year and our popular Predictive Modeling Workshop will be returning as well as our classic Basic Ratemaking and Product Development Workshops.

Attendees will have networking opportunities to renew and expand their list of industry contacts, and exhibitors will be on hand to demonstrate their relevant services and knowledge.

The following registration options are offered:

1. one full day of focused workshops; or
2. two days of traditional general/concurrent sessions; or
3. both the focused workshops and the traditional two-day seminar.

Enrollment Information

Registration fees include all meeting materials, evening receptions on Monday and Tuesday, as well as continental breakfast, lunch, and refreshment breaks on Tuesday and Wednesday.

Registrations received after February 20, 2012, will be subject to a $200 late fee. The CAS Office staff will send a confirmation by e-mail to all registrants.

Cancellation Policy

Registration fees will be refunded for cancellations received by the CAS Office no later than **March 12, 2012**, less a $100 processing fee. Only written cancellations will be honored and may be faxed to (703) 276-3108 or e-mailed to refund@casact.org.

In the event that a CAS meeting is canceled, a full refund will be made for registration fees paid. Transportation and hotel costs or fees are not reimbursable by the CAS.

Keynote Speaker
Kevin Slavin, author of *How Algorithms Shape the World*

In his lecture, Mr. Slavin will talk about the “Quantified Self,” which refers to the technologies, companies, and culture of digital self-tracking, embodied in such applications as Foursquare and Foodspotting. These tracking applications are used in many ways—from improving overall health to enhancing sports performance and to increasing social activity. Mr. Slavin believes that math is shaping our environments, calling this trend the “physics of culture.” The world is increasingly subject to algorithmic optimization—not just on Wall Street, but in our homes, architecture, and cities.

Mr. Slavin has covered much of this phenomenon as a professor at NYU/ITP and at Cooper Union and as a consultant with several health-oriented startups. He also understands business and technology from the corporate side, having spent 10 years as an advertising executive for large tech brands like Microsoft and Time Warner. He has also worked with Nokia, Nike, Puma, MTV, Discovery Channel, CBS, and Disney. Currently, he is investing in and advising several new startups including locative games, education analytics, luxury retailing, algorithmic sports analysis, visual search, and online video advertising. His thinking and ventures have been featured in major business publications such as the *Wall Street Journal*, *The New York Times*, *Wired*, *Businessweek*, and *Fast Company.*

Continuing Education Credits

For CAS members who are subject to the American Academy of Actuaries (AAA) "Qualification Standards (including Continuing Education Requirements) for Actuaries Issuing Statements of Actuarial Opinion" in the United States, this activity may qualify for up to 13.5 CE Credits.* Workshop attendees may add a maximum of 7.2 CE Credits.* Roundtable attendees may add a maximum of .9 CE Credits.*

CAS members subject to these "Qualification Standards" can earn up to 1 CE Credit per 50 minutes of relevant educational session time, not to include breaks or lunch. Please note that participating in a live event qualifies as an "organized activity" under those same Academy rules. It is an actuary's responsibility to make a reasonable, good-faith determination of what CE opportunities will enhance his or her ability to practice in a desired field. Participants should only claim credit commensurate with the extent and length of their participation in the activity and their assessment of the job relevance of the activity. The Academy's "Qualification Standards" provides a complete list of guidelines concerning continuing education. Actuaries attending a CAS event to satisfy AAA requirements should review all guidelines in that publication.

Precept 2 of the CAS Code of Professional Conduct states in part that, "An Actuary shall perform Actuarial Services only when the actuary is qualified to do so." The Academy establishes qualification standards for statements of actuarial opinion in the United States of America. Those standards require that actuaries update and maintain knowledge of applicable principles of actuarial science and actuarial standards of practice through education and experience to include continuing education.

**The amount of CE credit that can be earned for participating in this activity must be assessed by the individual attendee. It also may be different for individuals who are subject to the requirements of organizations other than the American Academy of Actuaries.*

U CAS Education is Just a Click Away

University of CAS (UCAS)

The CAS enables members to earn continuing education credits through its UCAS online service. Visit the University of CAS to begin this experience in education. UCAS provides a virtual world of opportunities to help enhance your professional education needs. Through capture of live content from CAS meetings and seminars, UCAS will offer a variety of session presentations, audio recordings, podcasts, and recorded Webinars.

Please visit the UCAS Web Site (www.softconference.com/cas) for more information.

Consent to Use of Multimedia

Registration and attendance at or participation in CAS meetings, seminars, and other activities constitutes an agreement by the registrant to the CAS on use and distribution (both now and in the future) of the registrant or attendee's image or voice in photographs, videotapes, electronic reproduction, and audiotapes of such events and activities.

Paperless Seminar

Green seminars incorporate solutions designed to minimize negative impacts on the environment. The CAS has taken a step in that direction by making the RPM seminar paperless, which means:

- Paper copies of session handouts will not be provided in the meeting rooms.
- Paper copies of the list of attendees will not be distributed, though a few copies will be available for review at the RPM Seminar registration desk.
- Seminar evaluations will be administered online.
- Session slides will be posted on the RPM Seminar Web Site in advance of the seminar so that attendees can download, print, and bring handouts as desired. Please note that not every presenter will choose to provide a presentation for his or her session.

Once at the RPM Seminar, attendees are encouraged to use the complimentary Cyber Café to view the list of attendees, complete the online evaluation forms, and download presentations to a USB flash drive for the sessions they attend.

The CAS appreciates your participation in this effort to reduce the seminar's carbon footprint and impact on the environment.

Exhibitor and Sponsor Opportunities

Get exposure for your company by sponsoring or exhibiting at the RPM Seminar. A tabletop exhibit is an excellent value and allows you to showcase your products and services to an expected audience of 500 risk professionals. A sponsorship allows your company to stand out among a sea of competitors. Do not delay, as opportunities are limited! Contact Megan O'Neill at (703) 562-1742 or moneill@casact.org, for details on becoming an exhibitor and sponsor.

Workshops

The 2012 RPM seminar will feature four outstanding workshops facilitated by excellent presenters working within the ratemaking and product management fields. The full day of workshops, taking place before the regular program, will give attendees more in-depth, focused, and interactive learning experiences. On Monday March 19, Workshops 1, 2, 3, and 4 will be offered from 9:00 a.m. - 5:00 p.m., with sufficient time allotted for networking. Workshop registration fees include a continental breakfast, luncheon, and a refreshment break on Monday.

Workshop 1—Basic Ratemaking

The Basic Ratemaking Workshop offers a complete understanding of the basic concepts and practices needed for ratemaking. These concepts include how to:

- Calculate an overall indication
- Calculate indications for various rating plans and consider data on a multivariate basis
- Approach the concept of data credibility
- Present this data in a rate filing

The workshop is substantively the same as last year, however, some changes providing participants with "hands-on" experience have been made. This workshop is intended for participants who have little knowledge of ratemaking.

Workshop 2—Predictive Modeling

The Predictive Modeling Workshop will be designed and paced at a level appropriate for beginning predictive modelers. The workshop will be interactive in nature, emphasizing practical application, with theoretical discussions appropriately interspersed in order to improve the level of understanding. It will cover a blend of topics that reflect the nature of real-life actuarial modeling projects and will complement both the CAS Syllabus and typical sessions given at CAS RPM Seminars. The structure of the workshop will entail an increasingly complex set of practical case studies, with ample time spent on a personal auto predictive modeling exercise. All datasets used during the workshop will be documented and distributed to attendees prior to the seminar.

Workshop 3—Product Development

This workshop will explore the different stages of product development with hands-on exercises for the attendee. Industry leaders will serve as facilitators to review historical processes and to help guide the attendees throughout the day. Attendees will work in teams to develop fictitious products that will be discussed and integrated into the facilitators' lesson plans.

Workshop 4—R

Over the last several years, the open source R programming language has increased in use in both academic and business settings. This is also true within the actuarial community. Its emergence is largely due to its powerful data manipulation features, broad data visualization capability and rich set of supporting packages.

This beginner-level course covers the basics of the R language, including introductions to loading data, performing calculations, creating graphs, and use of simple statistical functions. Exercises will cover common tasks that actuaries may have to perform in their analyses. The course is a lead-in for the Predictive Modeling course by Jim Guszcza but is not a prerequisite.

Lodging Information

Philadelphia Marriott Downtown
1201 Market Street
Philadelphia, PA 19107
Phone: (215) 625-2900
Fax: (215) 625-6000
Toll-free: (800) 320-5744
Reservations: https://resweb.passkey.com/go/CAS2012

The Philadelphia Marriott Downtown hotel commands a towering presence in the heart of America's original capital. Surrounded by rich history and culture, this Philadelphia downtown hotel location exceeds the expectations of both business and leisure travelers. Hotel guests can take in the sights of Independence Hall and the Liberty Bell, which are located within eight blocks. A collection of fine restaurants are located on-site or within walking distance of the Philadelphia Marriott Downtown hotel, in addition to the city's best shopping and entertainment venues. Easy to reach by any mode of transportation, the hotel is just one mile from the 30th Street Train Station and nine miles from Philadelphia International Airport.

- Room rates are **$209 single or double occupancy plus applicable taxes. Check in time is 4:00 p.m. and Check out time is 12:00 p.m.**
- Call (800) 320-5744 or (215) 625-2900 for reservations and indicate the group affiliation as Casualty Actuarial Society.
- **Reservations must be made by March 2, 2012.**

Preliminary Schedule

SUNDAY, MARCH 18, 2012

4:00 p.m. – 6:00 p.m.	Workshop Registration

MONDAY, MARCH 19, 2012

(9:00 a.m. – 5:00 p.m.)	Full Day of Workshops
	Workshop 1: Basic Ratemaking
	Workshop 2: Predictive Modeling (Afternoon Only)
	Workshop 3: Product Development
	Workshop 4: R (Morning Only)
8:00 a.m. – 6:30 p.m.	Registration
5:00 p.m. – 6:30 p.m.	Informal Welcome Reception

TUESDAY, MARCH 20, 2012

7:15 a.m. – 8:00 a.m.	Roundtable Discussions
7:15 a.m. – 8:15 a.m.	Continental Breakfast
7:15 a.m. – 7:00 p.m.	Registration & Exhibits
8:15 a.m. – 9:45 a.m.	**Opening Session/Keynote Address**
9:45 a.m. – 10:15 a.m.	Refreshment Break
10:15 a.m. – 11:30 a.m.	**Concurrent Sessions 1**
11:30 a.m. – 12:30 p.m.	Luncheon
12:30 p.m. – 1:45 p.m.	**Concurrent Sessions 2**
1:45 p.m. – 2:15 p.m.	Refreshment Break
2:15 p.m. – 3:30 p.m.	**Concurrent Sessions 3**
3:30 p.m. – 4:00 p.m.	Refreshment Break
4:00 p.m. – 5:15 p.m.	**Concurrent Sessions 4**
5:45 p.m. – 7:00 p.m.	Reception

WEDNESDAY, MARCH 21, 2012

7:00 a.m. – 8:00 a.m.	Continental Breakfast
7:00 a.m. – 2:30 p.m.	Registration & Exhibits
8:00 a.m. – 9:15 a.m.	**Concurrent Sessions 5**
9:15 a.m. – 9:30 a.m.	Refreshment Break
9:30 a.m. – 10:45 a.m.	**Concurrent Sessions 6**
10:45 a.m. – 11:15 a.m.	Break
11:15 a.m. – 12:30 p.m.	**Concurrent Sessions 7**
12:30 p.m. – 1:15 p.m.	Box Lunch
1:15 p.m. – 2:30 p.m.	**Concurrent Sessions 8**

Suggested Attire

Business casual attire is suggested for all sessions, as well as the evening receptions on Monday and Tuesday. As meeting room temperatures and personal comfort levels may vary, it is recommended that you bring a sweater or jacket to the sessions.

In Philadelphia, the average high temperature during March is 53 degrees and the average low is 34 degrees.

Additional Information

- For more information on this seminar or other CAS opportunities, or for more information regarding administrative policies such as complaints and refunds, please contact the CAS Office at (703) 276-3100 or office@casact.org.
- For more information on attendee registration, please e-mail mrc@casact.org.
- For more information on the Ratemaking and Product Management Seminar other than registration issues, please e-mail meetings@casact.org.

Tweet at the 2012 RPM Seminar!

What's happening at the RPM Seminar?
We want to hear from you!

Tweet about the RPM workshops, sessions and meeting events using the hashtag **#RPM2012.**

Follow the CAS on Twitter @CASact

Not using Twitter yet?

Text "CASact" to 40404 to Follow the CAS on Twitter and Follow the Prompts to Sign Up!

CAS 2012 RPM Seminar Registration Form - Three Ways to Register

IF PAYING ONLINE
For quick and convenient registration and payment,
Please visit **www.casact.org**

or

IF PAYING BY CREDIT CARD
Complete this form and MAIL to:
Casualty Actuarial Society
4350 N. Fairfax Drive, Suite 250
Arlington, VA 22203
OR fax to: (703) 276-3108

or

IF PAYING BY CHECK
Complete this form and send with check made payable to:
Casualty Actuarial Society
PO Box 425
Merrifield, VA 22116-0425

If you fax in your registration with credit card information, please do not mail the original form as well—this may cause a duplicate charge to your credit card. All credit card payments will be processed in U.S. dollars.

1. Registration Information*

Name

Badge Name (Name as it is to appear on badge)

Company

Address

City State Zip

Telephone

E-mail Address

** Please Note: This is not a change of address form. If you need to change your contact information listed with the CAS, please do so with the online change of address form at www.casact.org or call the CAS Member Resource Center at (703) 276-3100.*

Registration fees for members of the CAS Academic Correspondent program and CAS academic members will be waived per the guidelines listed in the 2011 Yearbook and 2010 Proceedings.

4. Additional Information

❑ Check here if you do not want to receive mailings from exhibitors.

❑ Check here if you have any special requirements due to disability.

❑ Check here if you have any dietary restrictions and list here.

2. Seminar Registration Fees

Fees include any seminar materials, continental breakfasts, luncheon, refreshment breaks, and receptions. All registration fees listed are in U.S. currency.

Registration Fees	CAS/AAA/Member/CAS Candidate** Subscriber/Academic Correspondent	Nonmember
Received on or Before February 20	$900	$1100
Received after February 20	$1100	$1300
Government Employee	$450	$550
Moderator/Panelist	$450	Waived

Workshop Fees					
Attending the Seminar	Workshop 1 or 3	Workshop 2 Only	Workshop 4 Only	both Workshop 2 & 4	Workshop RPM Speaker
Received by 2/20/12	$650	$350	$350	$650	
Received after 2/20/12	$750	$450	$450	$750	
Not attending the Seminar					Waived
Received by 2/20/12	$850	$550	$550	$850	
Received after 2/20/12	$950	$650	$650	$950	
Workshop (select one or both #2 & #4)	#1______ #2______ #3_____ #4_____				

*** An Active Candidate is a Non-CAS Member who has attempted at least one actuarial exam in the last two years.*

3. Method of Payment

❑ Check enclosed for the amount $______________________

❑ Credit Card for the amount $______________________

(please check one): ❑ Visa ❑ Master Card ❑ American Express

Card Number Expiration Date (MM/YY)

Cardholder's Name

Billing Address

Signature

Note: Credit Card Payments will not be processed if any of the credit card information is blank.

Cancellation Policy
The fee will be refunded for cancellations received by March 12, 2012, less a $100 processing fee. Only written cancellations will be honored. Cancellations will be accepted by fax at (703) 276-3108 or via e-mail to refund@casact.org.

Proposed Concurrent Sessions

Please indicate the sessions you wish to attend below. We realize that conflicts may occur; you will not be required to attend these sessions at the seminar.

Commercial Lines

- ❑ Catastrophe Modeling for Commercial Lines
- ❑ Commercial Lines Predictive Analytics
- ❑ Cyber Risk
- ❑ Estimating Systemic Risk for Professional Lines
- ❑ Predicting the Unpredictable Commercial Line Business—Predictive Modeling Applications for Excess Loss and Specialty Lines

Data Management

- ❑ Data Cleansing for Predictive Modeling
- ❑ Data Management Call Paper Session #1: Social Media Analytics: Data Mining Applied to Insurance Twitter Posts
- ❑ Data Management Call Paper Session #2: Beginner's Roadmap to Working with Driving Behavior Data
- ❑ Distracted Driving, Text Data, and Predictive Analystics
- ❑ Emerging Trends in Auto-Related Medical Claims Payments—or UCR After Ingenix

Implementation Issues

- ❑ And the Overall Rate Indication is?
- ❑ Business-Driven Implementation Strategies
- ❑ Implementing Value-Based Pricing—What and How People Buy
- ❑ Intelligent Use of Competitive Analysis
- ❑ Lessons Learned: Viewpoints on Increasing Analytical Capabilities in an Organization
- ❑ Price Optimization for the U.S. Market: Techniques and Implementation Strategies
- ❑ The Last Mile

Personal Lines

- ❑ Predictive Modeling and By-Peril Analysis for Homeowners Insurance
- ❑ Pricing and Product Issues in the International Marketplace
- ❑ Severe Weather Ratemaking
- ❑ Update on Latest Vehicle Changes and Safety Enhancements—Vehicle Rating Developments
- ❑ Usage-Based Insurance: Are You Ready?
- ❑ Why Banks Need Actuaries—Predictive Models Applied to Debt Protection

Predictive Modeling

- ❑ Balancing Robust Statistics and Data Mining in Ratemaking: Gradient-Boosting Modeling
- ❑ Case Studies in Adding Variable Interactions to GLMs
- ❑ External Data for Predictive Modeling
- ❑ GLM I
- ❑ GLM II
- ❑ GLM III—The Matrix Reloaded
- ❑ Insurance Modeling with the Tweedie Compound Poisson Distribution
- ❑ Introduction to Bayesian Modeling for Ratemaking
- ❑ Loss Cost Modeling vs. Frequency and Severity Modeling
- ❑ Model Validation—Know Your Audience
- ❑ Moving Beyond the Credit Score
- ❑ Predictive Modeling Best Practices
- ❑ Territorial Ratemaking
- ❑ The How, Why, and When of PRIDIT: Examples from Hospital Quality and Fraud Detection
- ❑ Variable Selection Using Elastic Net

Product Management

- ❑ Large Scale Analysis of Renewal Discounts for P&C Insurance
- ❑ Commercial Actuary vs. Commercial Product Manager: A Comparison of Professions
- ❑ Customer Lifetime Value—Opportunities and Challenges
- ❑ Discussion of Using "Tiers" for Insurance Segmentation from Pricing, Underwriting, and Product Management Perspectives
- ❑ Machine Learning: Using Your Best and Worst Profiles for Product Management
- ❑ Product Architecture

Professionalism

- ❑ Actuarial Documentation: Does Yours Make the Cut?
- ❑ Avoiding Litigation and Disciplinary Risk
- ❑ Professionalism for Predictive Modelers

Rate of Return

- ❑ COTOR Update: The Liquidity Risk Premium Project
- ❑ Practitioner's Guide to Cost of Capital/Profit Provisions
- ❑ Risk Load/Cost of Capital: How Reinsurers Consider these in Reinsurance Rates for Property Cat Covers
- ❑ Risk and Return Considerations in Ratemaking: Calculating the Profit Provision

Ratemaking Call Paper Program

- ❑ Ratemaking Call Paper Session #1
- ❑ Ratemaking Call Paper Session #2

Regulation

- ❑ Ask a Regulator
- ❑ Credit Scoring
- ❑ State vs. Federal Regulation
- ❑ What Makes a Good Rate Filing?

Workers Compensation

- ❑ A Predictive Diagnosis of Workers Compensation Claims Costs
- ❑ Current Issues in Workers Compensation
- ❑ Just How Credible Is That Employer?
- ❑ Workers Compensation Ratemaking—An Overview
- ❑ Workers Compensation—Selected State Issues