

THE 8TH INTERNATIONAL *useR!* CONFERENCE

12TH – 15TH JUNE, 2012



HOSTED BY:

VANDERBILT  UNIVERSITY

DEPARTMENT OF BIostatISTICS

WELCOME!

Dear useRs,

Welcome to the R user conference, useR! 2012, hosted by the Department of Biostatistics, Vanderbilt University School of Medicine. Following seven successful meetings, the useR! conference is focused on: R as the 'lingua franca' of data analysis and statistical computing; providing a platform for R users to discuss and exchange ideas on how R can be used for statistical computations, data analysis, visualization and exciting applications in various fields; and giving an overview of the new features of the rapidly evolving R project. The program consists of invited talks discussing new R developments and interesting applications of R, and user-contributed presentations reflecting the wide range of fields in which R is used to analyze data.

The following pages provide you with information regarding the R User Conference, useR! 2012. We hope that you find the conference stimulating, and that your visit at Vanderbilt University is enjoyable.

With kind regards from the useR! 2012 Organizing Committee.

| | |
|------------------------------------------|------------------------------------|
| Frank Harrell (Chair) | JoAnn Alvarez |
| Audrey Carvajal | William Cunningham |
| Chris Fonnesebeck | Tatsuki Koyama |
| Stephania McNeal-Goddard | Matt Shotwell |
| Yanna Song | Sherry Stokes |
| Yuwei Zhu | |

The organizing committee gives special thanks to Natalie Raines and her colleagues from Vanderbilt Medical Center Special Events, and to Department of Biostatistics lead local organizer Stephania McNeal-Goddard. We also thank an anonymous artist for the t-shirt and front-cover designs.

PROGRAM OVERVIEW

Monday, June 11

07:30 – 09:00

Continental Breakfast & Registration (for short-course attendees)

09:00 – 17:30

Pre-conference short course, Bill Venables

Tuesday, June 12

07:00 – 08:30

Morning Tutorial Registration

08:30 – 12:00

Morning Tutorial Sessions

12:00 – 13:00

Afternoon Tutorial Registration

13:30 – 17:00

Afternoon Tutorial Sessions

14:00 – 17:00

Early Conference Registration

16:30 – 18:30

Opening Mixer

Wednesday, June 13

07:45 – 08:45

Conference Registration & Breakfast

08:45 – 09:00

Introductory Remarks

09:00 – 09:45

Opening Keynote - Di Cook

09:50 – 10:50

Kaleidoscope I

10:50 – 11:15

Break

11:15 – 12:35

Focus I

12:35 – 14:00

Lunch

14:00 – 14:45

Invited Talk - Bryan Hanson

14:45 – 15:30

Invited Talk - Simon Urbanek

15:30 – 16:00

Break

16:00 – 17:00

Focus II

17:05 – 18:05

Lightning Talks

18:15 – 21:00

Poster Session with Drinks and Barbecue buffet

Thursday, June 14

08:00 – 09:00

Breakfast & Conference Registration

09:00 – 09:45

Thursday Keynote - Kevin Coombes

09:50 – 10:50

Kaleidoscope II

10:50 – 11:15

Break

11:15 – 12:35

Focus III

12:35 – 14:00

Lunch

14:00 – 14:45

Invited Talk - Norm Matloff

14:45 – 15:30

Invited Talk - Yihui Xie & JJ Allaire

15:30 – 16:00

Break

16:00 – 17:00

Focus IV

17:05 – 18:05

Special Invited Discussion

17:30 – 19:15

Shuttle to Country Music Hall of Fame & Cocktail Hour

19:15 – 23:00

Conference Dinner¹

Friday, June 15

08:00 – 09:00

Breakfast

09:00 – 09:45

Invited Talk - Tim Hesterberg

09:50 – 10:50

Focus V

10:50 – 11:15

Break

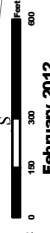
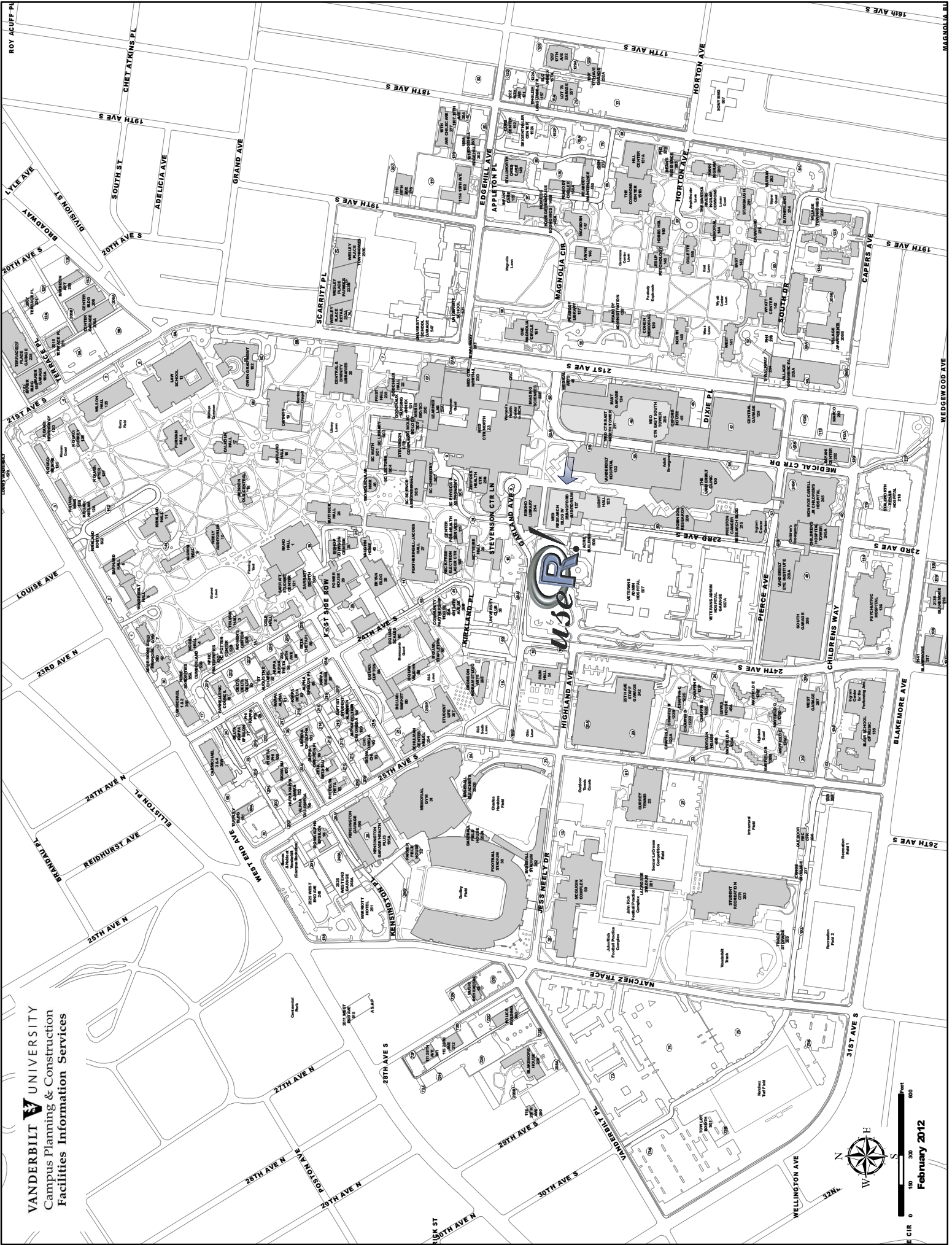
11:15 – 12:15

Closing Keynote - Bill Venables

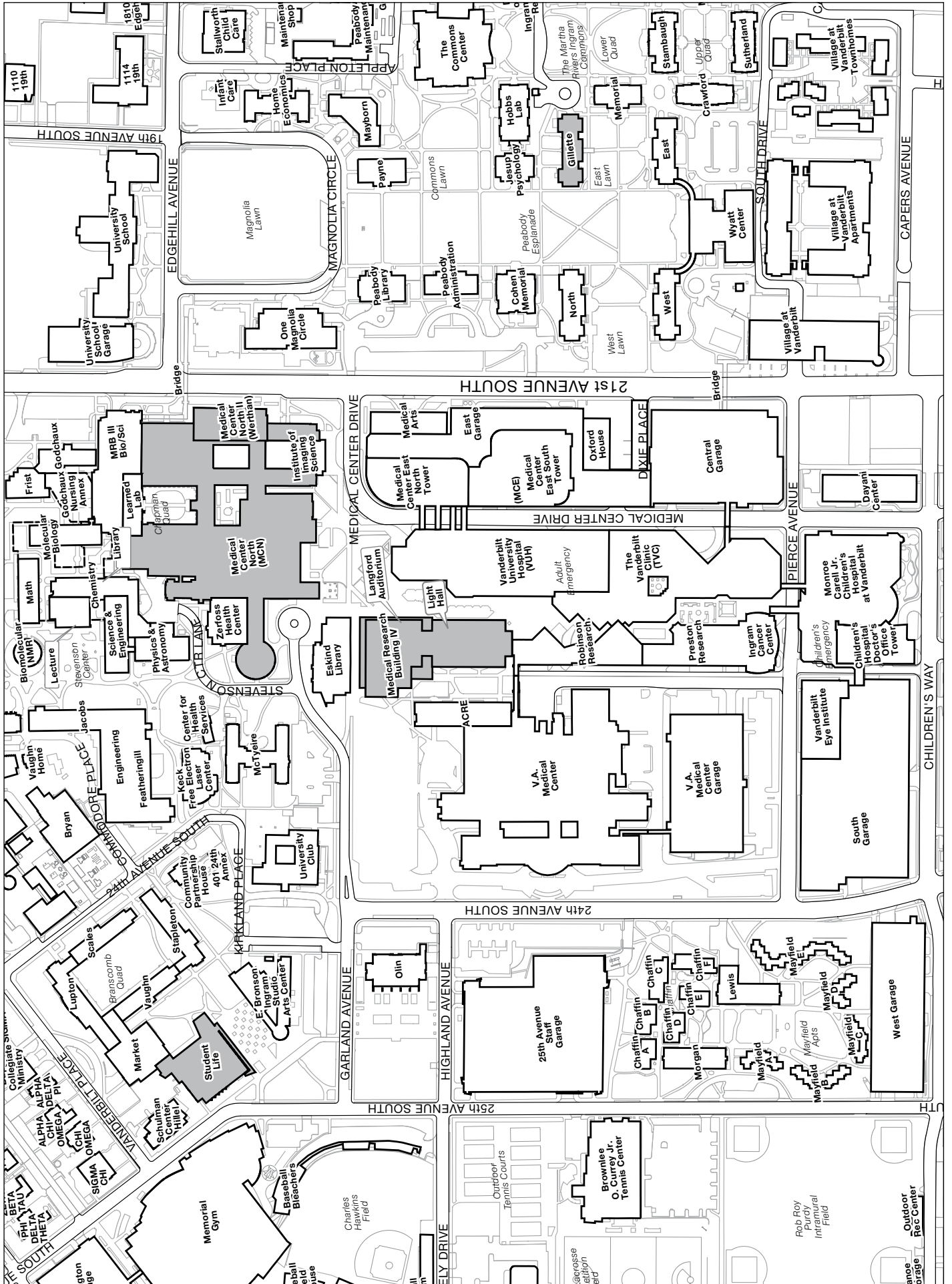
12:15 – 12:35

Closing Remarks

¹admission to the Conference Dinner will be via ticket only



February 2012



TRAVEL AND ACCOMMODATION

Time zone

Nashville is in the central time zone (CST).

Venue

The main conference takes place at

Langford Auditorium & Light Hall
Vanderbilt University Medical Center
Nashville, TN 37232-2158
USA

Bill Venables' pre-conference short course will take place in the Vanderbilt Student Life Center (SLC). The conference will be held in three buildings: the Student Life Center (SLC), Randolph Light Hall (RLH), and Medical Center North (MCN). Two campus maps are provided. The small-scale map illustrates the entire campus, but highlights Light Hall/Langford auditorium. The large-scale map highlights the Student Life Center, Light Hall, and Medical Center North. The Student Life Center is located near the intersection of 25th Avenue South and Vanderbilt Place. Light Hall and Medical Center North are both located near the intersection of Garland Avenue and Stevenson Center Drive. Interactive maps, including the locations of conference hotels, on-campus housing, parking garage (for those not staying on campus), and conference venues are available at the conference website.

Traveling to Nashville and Vanderbilt University

Vanderbilt University is located in Nashville, Tennessee, USA. The nearest major airport is [Nashville International Airport \(BNA\)](#), located about ten miles east of campus. The BNA website maintains a list of ground transportation options for air travelers. Taxi fare from the airport to Vanderbilt University is about \$27, and shuttles and buses are more economical options but have longer travel times.

Parking

Conference parking (during the day) will be available at the 25th Avenue Garage on Vanderbilts campus. The cost for each day is \$7.75 per vehicle, and each car will be provided with parking hangtag. Shuttles will run regularly between all the host hotels and the conference venues while the conference is in session. If you need to arrange handicapped parking, please contact Natalie Raines at 001 615 343 3320, or by e-mail at natalie.dietz@vanderbilt.edu.

GENERAL INFORMATION

Conference registration

On-site registration for the conference will take place Tuesday through Thursday at the times listed below. In addition, short-course and tutorial participants may register for the conference at the short-course or tutorial registration times.

| | | |
|--------------------------|---------------|---------------------------|
| Tuesday, June 12, 2012 | 14:00 – 17:00 | Light Hall north lobby |
| Wednesday, June 13, 2012 | 07:45 – 08:45 | Langford Auditorium lobby |
| Thursday, June 14, 2012 | 08:00 – 09:00 | Langford Auditorium lobby |

Internet access

Wireless internet access is available throughout Light Hall and Langford Auditorium. The SSID for wireless internet access is “vummiv”. This access point is unsecured, and the SSID may not be broadcast. Hence, it may be necessary to manually connect. There may also be a secured access point with an identical SSID. Please do not attempt to connect to the secured access point. Additional instructions are available at the [VUMC Help Desk](#) website, or by calling 615 343 4357 (34357 if on campus).

Meals

A continental breakfast and boxed lunch will be provided for those attending Bill Venables’ short course Monday June 11th. No meals will be provided for tutorial participants on Tuesday June 12th. However, beer, wine, non-alcoholic drinks, and light hors d’oeuvres will be served during the opening mixer Tuesday evening (16:30–18:30). Breakfast will be provided for all participants the mornings of June 13, 14, and 15 (Wednesday, 07:45–08:45; Thursday and Friday, 08:00–09:00). Lunch will be served for all registrants the days of June 13 and 14. All participants are invited to enjoy barbecue buffet with sides, including vegetarian options, beer, and non-alcoholic drinks during the Wednesday evening poster session. Each of the conference breaks will offer a selection of drinks and snacks.

The conference banquet will be held Thursday evening at the Country Music Hall of Fame in downtown Nashville. Admission is by ticket only. Shuttles departing from the Round Wing drop-off point, just outside Langford Lobby, will begin at 17:30. Return shuttles will begin at 20:00 and continue until 22:30, and make stops at each conference hotel, Gillette House, and the 25th Avenue Garage. Cocktail hour will begin at 18:15. The museum will be available during the cocktail hour. Dinner will be served at 19:15. For those driving separately, parking is available at the Pinnacle building near the intersection of Demonbreun and 3rd Avenue. Parking vouchers will be available at the dinner welcome desk.

There are many outside dining options in the Vanderbilt University area, all within a 15 minute walk of the conference venues. On the campus of Vanderbilt University and Medical Center, there is an Au Bon Pain café, the hospital cafeteria and a food court in Monroe Carell Junior Children’s

Hospital. There is a variety of restaurants along 21st Avenue South, which runs along the east perimeter of the campus. There is also a cluster of restaurants at the corner of West End Avenue and 25th Avenue South.

Shuttle Schedule

Throughout most of the conference, shuttles will run continuously between the participating conference hotels and one of two conference locations: the Vanderbilt Student Life Center, and the Round Wing drop-off point, which is in close proximity to Langford Auditorium, Light Hall, and Medical Center North, and is a short walk from the Student Life Center. The beginning and ending points, and operating times are listed below for each day of the conference.

| | |
|---------------------------|------------------------------------------------------------------------|
| Monday, June 11 | Hotels to/from Vanderbilt Student Life Center, from 07:15 until 18:00. |
| Tuesday, June 12 | Hotels to/from Round Wing drop-off point, from 07:15 until 19:30. |
| Wednesday, June 13 | Hotels to/from Round Wing drop-off point, from 07:15 until 21:30. |
| Thursday, June 14 | Hotels to/from Round Wing drop-off point, from 07:15 until 19:30. |
| Friday, June 15 | Hotels to/from Round Wing drop-off point, from 07:15 until 13:30. |

Beginning at 17:30 on Thursday, there will be additional shuttles to take conference attendees from the Round Wing drop-off point to the Country Music Hall of Fame for the Conference Dinner. Starting at 20:00 shuttles will begin returning dinner guests to their hotels, Gillette House, and the 25th Avenue Garage. The final shuttle will depart from the Country Music Hall of Fame at 22:30.

Smoking policy

The Vanderbilt University Medical Center is a smoke-free facility.

Emergency information

The phone number for fire, police, and medical emergencies in the United States is 911. When using Vanderbilt phones, you must dial 9 first to get off-campus lines. To contact Vanderbilt University Police for non-emergency matters, call 615 322 2745 (22745 from campus lines). For urgent conference matters, call Stephania McNeal-Goddard at 615 322 4924.

PROGRAM COMMITTEE AND CONFERENCE SPONSORS

Program Committee

| | |
|-----------------------|------------------|
| Matt Shotwell (Chair) | Claudia Beleites |
| Dirk Eddelbuettel | John Fox |
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| Jeffrey Horner | Andy Liaw |
| Uwe Ligges | Steve Miller |
| Kate Mullen | Bill Pikounis |
| Heather Turner | Ravi Varadhan |
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Conference sponsors

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useR! 2012 PROGRAM

Monday 11th June: Short Course: *Statistical modeling in the R context*

Registration for **Bill Venables'** short course begins at 07:30 in the Student Life Center (SLC) lobby. A continental breakfast will be served from 07:30 until 09:00. The morning session begins in the SLC Commodore Ballroom at 09:00 and ends at 12:30, with a coffee break at 10:15. Lunch will be served from 12:30 until 13:45. The course resumes for the afternoon at 14:00 and ends at 17:30, with a break at 15:45.

Tuesday 12th June: Tutorials

Tutorial registration begins at 07:00 in the north lobby of Light Hall. Morning tutorials will be held from 08:30 until 12:00, with a break for coffee at 10:00. Lunch will **not** be catered for tutorial participants. Afternoon tutorials will be held from 13:30 until 17:00, with a break at 15:00.

Tutorials are located in three separate buildings: The Student Life Center (SLC), Light Hall (RLH), and Medical Center North (MCN). These buildings are highlighted on the smaller campus map. Tutorial room assignments are listed in parentheses, *e.g.*, (SLC A) indicates Student Life Center, Commodore Ballroom A.

Morning Tutorials

- **Terri Scott & Frank Harrell:** (SLC A) [Reproducible research with R, LaTeX, Sweave, & knitr](#)
- **Uwe Ligges:** (RLH 214) [Writing efficient and parallel code in R](#)
- **Dirk Eddelbuettel & Romain François:** (RLH 411) [Introduction to Rcpp](#)
- **Douglas Bates:** (RLH 202) [Fitting and evaluating mixed models using lme4](#)
- **Jeremiah Rounds:** (MCN C2209) [RHIFE: R and Hadoop integrated programming environment](#)
- **Jeffrey Horner:** (SLC B) [Building R web applications with Rook](#)
- **Brandon Whitcher, Jörg Polzehl, Karsten Tabelow:** (RLH 415) [Medical image analysis in R](#)
- **Richard Heiberger & Martin Maechler:** (RLH 419) [Emacs speaks statistics](#)
- **Olivia Lau:** (SLC C) [A crash course in R programming](#)

Afternoon Tutorials

- **Hadley Wickham:** (SLC A) [Creating effective visualisations](#)
- **Josh Paulson, JJ Allaire, & Joe Cheng:** (RLH 202) [Getting the most out of RStudio](#)
- **Romain François & Dirk Eddelbuettel:** (RLH 411) [Advanced Rcpp usage](#)
- **Terry Therneau:** (RLH 415) [Design of the survival packages](#)
- **Martin Morgan:** (MCN C2209) [Bioconductor for high-throughput sequence analysis](#)
- **Max Kuhn:** (RLH 214) [Predictive modeling with R and the caret package](#)
- **Robert Muenchen:** (SLC B) [Managing data with R](#)
- **Barry Rowlingson:** (SLC C) [Geospatial data in R and beyond](#)
- **Karim Chine:** (RLH 419) [Cloud computing for the R environment](#)

Early Registration & Opening Mixer

Early conference registration will be held Tuesday evening from 14:00 until 17:00 in the north lobby of Light Hall. All conference attendees are welcome to join us for drinks in the Langford lobby from 16:30 to 18:30. Beer, wine, non-alcoholic drinks and light snacks will be available for all attendees.

WEDNESDAY, JUNE 13TH

| | | |
|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 07:45 | Registration and Breakfast - Langford Lobby | |
| 08:45 | Introductory Remarks - Langford Auditorium | |
| 09:00 | Introductory Keynote - Langford Auditorium - Chair: Frank Harrell Jr. Di Cook Every plot must tell a story - even in R | |
| 09:50 | Kaleidoscope Ia - RLH 202 - Chair: Benjamin French | Benjamin Nutter Simplified reproducible research using lazyWeave |
| | | Michael Rutter Predicting dangerous E. coli levels at Erie, Pennsylvania beaches using R |
| | | Hadley Wickham Package development: the easy way |
| | Kaleidoscope Ib - RLH 208 - Chair: Rameela Chandrasekhar | David Smith Applications of R in business |
| | | Eric Stone Give your data a listen |
| | | Heather Turner Modelling the effect of social mobility on limiting long-term illness |
| 10:50 | Break - Langford Lobby | |
| 11:15 | Bioinformatics - RLH 202 - Chair: Brandon Whitcher | Daniel Connolly Integrating R efficiently to allow secure, interactive analysis within a clinical data warehouse |
| | | Kyle Covington Gene expression analysis in Red-R |
| | | Jean-Eudes Dazard R package ROCS for inferring specific protein-protein interactions in AP-MS data |
| | | Paul Kowalczyk Knowledge discovery in neglected disease databases: using R for data visualization, analysis and mining |
| | Visualization - RLH 208 - Chair: Hadley Wickham | Jean-Christophe Aude SVGMapping: an R package to map 'omic' data sets onto pathways templates |
| | | David Kahle ggmap : Interfacing ggplot2 and RgoogleMaps |
| | | Marie Vendettuoli Interactive hammock plots for visualizing categorical data |
| | | Yihui Xie cranvas: Interactive statistical graphics in R based on Qt |
| | Teaching - RLH 512 - Chair: Leena Choi | Brooke Anderson bespoke: A package to custom-make online web applications of statistics homework and practice problems |
| | | Mine Çetinkaya-Rundel Integrating R into introductory statistics |
| | | Colin Gillespie Teaching R to large first year classes |
| | | Edith Seier Randomization methods in introductory statistics courses |
| Survival Analysis - RLH 214 - Chair: Terry Therneau | Nicole Ferguson msSurv, an R package for nonparametric estimation of multistate models | |
| | Kathleen Jablonski A pipeline for analysis of SNP arrays for longitudinal studies (PASALS) | |
| | Stephanie Kovalchik Absolute risk models and calculators for clinical use in R | |
| | Jim Porzak Subscription survival analysis in R | |
| 12:35 | Lunch - Langford Lobby and Tent | |

| | | | |
|-----------------|------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14:00 | Invited Talk - Langford Auditorium - Chair: Bryan Shepherd | | |
| | Bryan Hanson | HiveR: 2 and 3D hive plots of networks | |
| 14:45 | Invited Talk - Langford Auditorium - Chair: Bryan Shepherd | | |
| | Simon Urbanek | Web-based interactive graphics and R in the cloud | |
| 15:30 | Break - Langford Lobby | | |
| Focus II | 16:00 | Commercial Database Applications I - RLH 214 - Chair: Przemyslaw Biecek | |
| | | Seonghak Hong | RHive in a data scientist's tool box |
| | | Mark Hornick | Providing scalable, transparent access to database-resident data for efficient enterprise advanced analytics |
| | | Patrick McCann | Parallel apply functions for in-database distributed scoring |
| | | Data Mining - RLH 202 - Chair: Tal Galili | |
| | | Joseph Rickert | Introduction to R for data mining |
| | | Taylor Arnold | hdIm: User oriented, high-dimensional linear model estimation |
| | | Max Kuhn | Rules, Rules, Rules! Regression modeling using the cubist package |
| | | Statistical Methods - RLH 208 - Chair: Jonathan Schildcrout | |
| | | Malika Charrad | Finding the relevant number of clusters in a data set : Nb.clusters package |
| | | Paul Schuette | Power and sample size for safety registries: new methods using confidence intervals and saw-tooth power curves |
| | | Shubing Wang | autoLDA, an R-package for automated longitudinal data analysis |
| | | GUI Extensions - RLH 512 - Chair: Sharon Phillips | |
| | | Sandra Griffith | Developing a context-specific plug-in for R Commander: Lessons learned from a longitudinal data Analysis training in a resource-limited setting |
| | | Jyotsna Kasturi | EZ-R4Excel: unleashing the statistical power of R in Excel |
| | Jocelyn Sendeki | A simple RExcel interface for Bayesian adaptive clinical trial enrollment | |
| 17:05 | Lightning Talks - Session A (RLH 202) - Session B (RLH 208) | | |
| 18:15 | Poster Session - Langford Lobby | | |
| | Drinks and a barbecue buffet will be served during the poster session. | | |
| 21:00 | Adjourn for Day | | |

LIGHTNING TALKS

| | | | |
|------------------------|---------------|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Lightning Talks | 17:05 | Session A - RLH 202 - Chair: Jennifer Thompson | |
| | | Douglas Adams | Animating geom_tile visualizations by combining ggplot2 and animation reveals daily symptom variability and patterns within cycles of chemotherapy |
| | | Jean-Christophe Aude | SVGMapping: an R package to map 'omic' data sets onto pathways templates |
| | | Winston Chang | New ggplot2 geoms for visualizing data distributions |
| | | Edwin de Jonge | Interactive tableplots |
| | | Ryan Elmore | Using R for scraping data |
| | | Garrett Grolemond | Dates and times made easy with lubridate |
| | | Tim Hesterberg | Two packages: dataframe, aggregation |
| | | Derek Hoffman | R use in order fulfillment at John Deere |
| | | Ronald Pearson | Developing the ExploringData package |
| | | Yihui Xie | Go social coding! Make open source more open! |
| | | Session B - RLH 208 - Chair: Hui Nian | |
| | | Erich Neuwirth | Excel is better for statistics than you think, thanks to R |
| | | Christine Buske | Diving deepeR: mining zebrafish behavior data with R |
| | | Laura Osorio Olvera | Analysis and modeling of deforestation in Coyuguilla, Guerrero, Mexico |
| | | Woo Jung | Overview of using PL/R in Greenplum with examples |
| | | Jared Knowles | Using R for policy research in a state education agency |
| | | Cuilan Gao | How to make a bioconductor package using R |
| | | Christopher Paciorek | Developing a tool in R for general inference for hierarchical models |
| | Kagba Suaray | Simulating censored data in R | |
| | Zoltan Toth | R at Prezi | |
| | Landon Jensen | JMP+R | |

POSTERS

18:15 Poster Session - Langford Lobby**Poster Session**

1. Patrick Breheny [Visualization of regression models using visreg](#)
 2. Jae Brodsky [Some challenges of using R in a regulatory environment](#)
 3. TszKin Julian Chan [Econometrics of network](#)
 4. Karim Chine [Towards an R-based data operating system for the the science clouds](#)
 5. Leena Choi [Profile likelihoods and the likelihood paradigm: The R Package ProfileLikelihood](#)
 6. Anthony Damico [The SAScii function](#)
 8. Bryan Hanson [Implementation of ANOVA-PCA in R for multivariate data exploration](#)
 9. Bryan Hanson [HiveR: 2 and 3D hive plots of networks](#)
 10. Sebastian Hoffmeister [The most general GUI-solution for R](#)
 11. Heewon Jeon [SNA with R text mining](#)
 12. Keehoon Kim [Modeling of volcanic sound radiation using finite-difference time-domain method in R](#)
 13. Helena Kotthaus [A JVM-based compiler strategy for the R language](#)
 14. Emilio L. Cano [Open platform for quality methodologies: a Six Sigma framework for competitiveness](#)
 15. Spencer Maynes [Fitting sinusoidal hysteresis in R: The R package fitellipse](#)
 16. Rodger Oren [Project management factor text analysis with R](#)
 17. Nicole Radziwill [Exploratory analysis of 2010 Starr Hill Brewing Company production data](#)
 18. James Robison-Cox [Discussion of R programming topics](#)
 19. Andrew Timm [The MDS-GUI: A graphical user interface for comprehensive multidimensional scaling applications.](#)
 20. Kevin Wright [The agridat package](#)
 21. Dean Yergens [RMail: Automated emailing of Sweave reports](#)
 22. Dean Yergens [Web-based epidemiology analytic system utilizing R](#)
 23. Edwin de Jonge [Interactive inspection of large data](#)
 24. Brandon Whitcher [RSimpleITK: An R interface to the Insight Toolkit with SimpleITK](#)
 25. Daniel Kaplan [Teaching calculus with R](#)
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THURSDAY, JUNE 14TH

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|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 08:00 | Breakfast - Langford Lobby | |
| 09:00 | Thursday Keynote - Langford Auditorium - Chair: Yu Shyr Kevin Coombes Cell lines - chemotherapy response - and the need for reproducible research | |
| 09:50 Kaleidoscope II | Kaleidoscope IIa - RLH 214 - Chair: Qingxia (Cindy) Chen Vijay Barve FlickR Karim Chine R, the cloud and the data deluge Jeroen Ooms Scalable embedded scientific computing with OpenCPU | |
| | Kaleidoscope IIb - RLH 202 - Chair: Chris Slaughter Winston Chang Tracking down bugs with bisect tools Garrett Grolemond Dates and times made easy with lubridate Leo Osvald TraceR: A framework for understanding R performance | |
| | Kaleidoscope IIc - RLH 208 - Chair: David Afshartous Robert Muenchen Helping your organization migrate to R Drew Levy Graphical tool for disambiguation of bias in health research Emilio L. Cano Decision making under uncertainty: R implementation for energy efficient buildings | |
| | 10:50 | Break - Langford Lobby |
| | 11:15 Focus III | Business Applications - Langford Auditorium - Chair: David Smith Emmanuel Senyo Fianu Risk management: An econometric analysis of risk in energy market. Jackie McCush Social network analysis for online group games Ruan Rossouw General process data management framework Samuel Thomas Using R to evaluate quality auditor consistency for a call center |
| | | Environmental/Spatial Statistics - RLH 208 - Chair: Lily Wang Narayani Barve Spatio-temporal analysis of climatic data in understanding species' distributions Nicholas Crookston Modeling North American vegetation: solving a 46-level classification problem Jonathan Lees Rquake: Earthquake hypocenter analysis Colin Rundel rgeos: spatial geometry predicates and topology operations in R |
| | | Official Statistics - RLH 202 - Chair: Heather Turner Jan-Philipp Kolb Generation of synthetic universes for micro-simulations in survey statistics Jerzy Wiecezorek Interactively mapping significant differences between areas Mark van der Loo New data correction features of editrules and deducorrect |
| | | Web Applications - RLH 214 - Chair: Jeff Horner Joe Olson Using R with node.js as a web service Thomas Roth Web applications for statistics in quality management John Verzani Creating interactive web pages within R: The gWidgetsWWW2 package |

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|-----------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| 12:35 | Lunch - Langford Lobby and Tent | |
| 14:00 | Invited Talk - Langford Auditorium - Chair: Ben Saville | |
| | Norm Matloff | Parallel R, revisited |
| 14:45 | Invited Talk - Langford Auditorium - Chair: Ben Saville | |
| | Yihui Xie & JJ Allaire | New tools for reproducible research with R |
| 15:30 | Break - Langford Lobby | |
| Focus IV | 16:00 | Commercial Database Applications II - RLH 512 - Chair: Mark Hornick |
| | | Przemyslaw Biecek Parallel data processing with R on combined IBM Netezza 1000 and HPC cluster |
| | | Antonio Piccolboni Slicing and dicing big data with RHadoop/rmr |
| | | Jung Woo High scale in-database modeling in Greenplum with R |
| | | Dimension Reduction - RLH 214 - Chair: Uwe Ligges |
| | | Natalia Becker penalizedSVM: feature selection for SVM classification in high dimensions |
| | | Jim Harner rknn: an R package for random KNN classification and regression with variable selection |
| | | Martin Sill Sparse principal component analysis using stability selection |
| | | Reproducible Research - RLH 202 - Chair: Xi (Steven) Chen |
| | | Jason Bryer Using the makeR package for managing document building and versioning |
| | | Søren Højsgaard Rmarkup - a very simple tool for literate programming |
| | | Andrew Redd harvestr: A simple reproducible parallel simulation framework |
| | | High-performance Computing I - RLH 208 - Chair: Dirk Eddelbuettel |
| | | Sai Kumar Popuri Implementation of the binomial method of option pricing using parallel computing in R |
| | Justin Talbot Efficiently executing R code on modern hardware | |
| | Zubin Dowlaty Building distributed intelligent systems for the enterprise with R | |
| 17:05 | Special Invited Discussion - Langford Auditorium - Chair: Douglas Bates | |
| | Douglas Bates | |
| | Chris Fonnesebeck | “What other languages should R users know about?” |
| | Dirk Eddelbuettel | |
| 18:05 | Shuttle to Conference Dinner - Outside Langford | |
| 19:15 | Conference Dinner (ticket required) - Country Music Hall of Fame | |

FRIDAY JUNE 15TH

| | | |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| 08:00 | Breakfast - Langford Lobby | |
| 09:00 | Invited Talk - Langford Auditorium - Chair: Bill Pikounis Tim Hesterberg A tale of two packages | |
| 09:50 | Engineering/Physics Applications - RLH 202 - Chair: Ming Li James Foadi cRy: a specialised software for statistical applications in x-ray crystallography Keith Halbert crackR: Probabilistic prediction of airframe fatigue damage Alastair Sanderson Measuring excess energy from galaxy feedback with mathematical modelling in R | |
| | High-performance Computing II - RLH 208 - Chair: Dirk Eddelbuettel Giuseppe Bruno Metropolis-Hastings goes parallel on a GPU: first experiences and results Michel Lang BatchJobs and BatchExperiments: Abstraction mechanisms for using R in batch environments Karl Millar Scaling R to internet scale data | |
| | Programming - RLH 512 - Chair: Chris Fonnesebeck Andrej Blejec angleR: calculate with angles given in degrees, minutes and seconds Joseph Conway PL/R: The fusion of PostgreSQL and R Alexander Matrunich R as sms-processing and report-generating tool in exit-poll | |
| | Regression Analysis - RLH 214 - Chair: Max Kuhn Andreas Alfons A toolkit for cross-validation: The R package cvTools Tatjana Kecojevic Smooth bootstrap inference for parametric quantile regression Giovanni Petris Outliers and structural breaks in structural time series | |
| | 10:50 | Break - Langford Lobby |
| | 11:15 | Closing Keynote - Langford Auditorium - Chair: Frank Harrell Jr. Bill Venables R, Quo vadis? |
| | 12:15 | Concluding Remarks - Langford Auditorium |
| | 12:35 | Adjourn |

NOTES

Printed abstracts will not be provided at the conference. The abstract booklet will be available for download at <http://biostat.mc.vanderbilt.edu/UseR-2012>.

Please note that there are three different formats for contributed talks:

useR! Kaleidoscope: These sessions will give a broad overview of the many different applications of R and should appeal to a wide audience.

useR! Focus Sessions: These sessions will focus on topics of special interest and may be more technical.

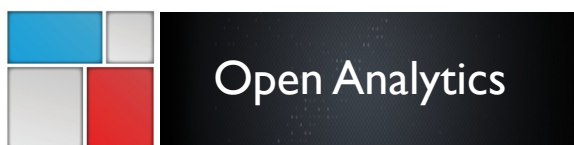
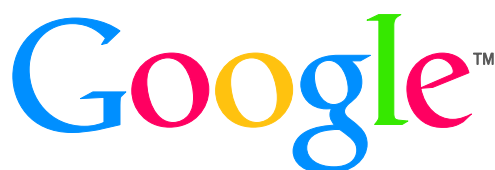
useR! Lightning Talks: Following success last year, these sessions, with oral presentations of 5 minutes, provide a platform for participants to speak on any R-related topic and should particularly appeal to R newbies.

Information for Speakers, Session Chairs, and Poster Presenters

- Presenters of Kaleidoscope and Focus contributed talks, please note that your talk is scheduled for 17 minutes, followed by 3 minutes discussion.
- Presenters of Lightning talks, please note that your talk is scheduled for 5 minutes, with 1 minute question/transition time. A variation of the *pecha kucha* and *ignite* formats will be used, in which you must provide 15 slides to accompany your talk and each slide will be shown for 20 seconds. Slides must be provided in PDF format and sent by email to biostat@vanderbilt.edu by 17:00, Monday, June 11, 2012.
- Each useR! Invited Lecture will last 40 minutes, with 5 minutes at the end of the lecture reserved for questions.
- Technical details: All lecture rooms are equipped with an LCD projector and a computer or laptop that is connected to the internet. Unless speakers require their own laptop for software demonstrations, speakers are expected to ensure that a PDF of their presentation slides is on the computer provided, before the start of their session. For presenters of Lightning Talks, this is achieved by sending the slides in advance as described above; for presenters of other talks, please see a conference organizer to arrange transfer of your slides. Conference organizers will be available in the lecture rooms at least 10 minutes before the program starts each day and at least 10 minutes before the program recommences after each coffee or lunch break. Please arrive well before the start of your session and introduce yourself to the Session Chair. During your talk, please look out for the countdown cards that the Chair will use to signal that your time is coming to a close.
- Session Chairs: Please arrive well before the start of your session to meet the speakers and ensure that they have a PDF of their slides on the room computer. Countdown cards will be provided to help you keep the speakers to time. If we are aware that a speaker is missing up to 2 hours prior to the relevant session, then other talks will be brought forward and a notice placed on the conference website, otherwise we request that Chairs keep to the timetable, and in the event of a missing speaker, advise the audience to go to an alternative talk.
- For those preparing posters, the poster boards can accommodate posters of dimension smaller than 4 feet tall and 6 feet wide. Poster presenters should arrive at least 15 minutes prior to the start of the poster session to put up their poster. Regular posters will have allocated boards as numbered in the schedule; late-breaking posters can be put up on any unnumbered board. Presenters should stay in the vicinity of their poster for the first hour of the session. Please take down your poster at the end of the session; if you are unable to stay until the end, remaining posters may be removed, but will be available at the registration desk the next day.

use **R!**

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