Advancing Public Health Statistics and Data Science Using R-INLA

When: Monday through Thursday, October 2–5, 2023

Daily Schedule:

09:00–10:15	Daily session 1
10:15–10:30	Break
10:30–11:30	Daily session 1, continued
11:30–13:00	Lunch break (on your own)
13:00–14:30	Daily session 2
14:30–14:45	Break
14:45–16:00	Daily session 2, continued

Where: Mon–Wed: Corporate Square Campus, Bldg. 11, Bauer/Sencer/Foege Room
Thu: Corporate Square Campus, Bldg. 11, Mason/Satcher/Roper Room

Reminder: Bring a laptop on which R, the R-INLA package, and dependent packages are installed. See https://www.r-inla.org for installation of the R-INLA package.

Training Agenda

Day 1. Introduction to INLA
Generalized additive mixed models (logistic, Poisson, time series and splines smoothers)
Day 2. Area-level spatial models, including joint modeling
Continuous space models and point processes
Day 3. Time-to event modeling I: Basics
Time-to-event modeling II: Joint modeling, competing risks and multistate models
Day 4. Spatio-temporal models including areal data
Spatial disease modeling example

Trainers

Janet Van Niekerk, Ph.D. (Mathematical Statistics) is a statistician with experience in Bayesian modeling and computational statistics. She has published more than 25 articles in Statistical Methods in Medical Research, Biometrical Journal, Journal of Statistical Software and Computational Statistics and Data Analysis, amongst others.

Elias T Krainski, Ph.D. (Mathematical Sciences) is a statistician with experience in spatial and spatio-temporal models. His publications includes a book in spatial and spatio-temporal models using the Stochastic Partial Differential Equations – SPDE approach, and papers in spatial epidemiology.

Denis Rustand, Ph.D. (Public Health Biostatistics) developed the joint modeling framework for longitudinal and survival data in the context of cancer clinical trials. He has published papers in Biostatistics, Biometrical Journal and Computational Statistics & Data Analysis, amongst others.

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This training is arranged by the Statistics, Estimation and Modeling Team, Division of Global HIV & TB. Contact Steve Gutreuter (wqh4@cdc.gov) with any questions.