August 23, 2019

StanCon2019 Organizing Committee P.O. Box 90596 Austin, TX 78709 USA



## To Whom It May Concern:

This letter confirms that attended 2 afternoons (1/2 day) of instruction for *Model assessment and selection* at StanCon2019 on August 20, 2019.

The course description is: In this tutorial I will review estimation of predictive performance of models in M-open setting where we assume that none of the models is the true model. When we don?t trust our models, we can re-use data as a model-free proxy for the future data distribution. To adjust for data re-use we use leave-one-out cross-validation for exchangeable observations, K-fold cross-validation for group exchangeable observations, and m-step ahead validation for time series. I present how these performance estimates and related predictive distributions can be used for model comparison, averaging and checking. I discuss fast importance sampling approximation including useful diagnostics. Finally I discuss relations to alternative methods for model selection and weighting. Tutorial demonstrations are based on R with rstan, rstanarm, brms and loo packages.

Proof of payment is in the form of the corresponding EventBrite receipt. Please note that individual tutorials were not ticketed.

StanCon2019 (https://mc-stan.org/events/stancon2019Cambridge/) is the annual conference of the Bayesian modeling language Stan.

Sincerely,

Breck Baldwin, Ph.D on behalf of StanCon Organizing Committee