

Recent developments in BART part 2

Rodney Sparapani

Medical College of Wisconsin

September 30: BART Bootcamp
Biostatistics in the Modern Computing Era
Medical College of Wisconsin, Milwaukee campus

BART R package doc directory

▶ `system.file('doc', package='BART')`

Essential BART References

- ▶ Chipman, George and **McCulloch**. Bayesian CART model search. JASA 1998.
<http://dx.doi.org/10.1080/01621459.1998.10473750>
- ▶ Chipman, George and **McCulloch**. BART: Bayesian Additive Regression Trees. Annals of Applied Statistics 2010.
<https://projecteuclid.org/euclid.aos/1273584455>
- ▶ Pratola, Chipman, Gattiker, Higdon, **McCulloch**, Rust. Parallel Bayesian Additive Regression Trees. JCGS 2014.
<https://arxiv.org/abs/1309.1906>
- ▶ Hahn, Carvalho. Decoupling shrinkage and selection in Bayesian linear models: a posterior summary perspective. JASA 2015.
<http://dx.doi.org/10.1080/01621459.2014.993077>
- ▶ **Sparapani, Logan, Laud, McCulloch**. Nonparametric survival analysis using Bayesian Additive Regression Trees (BART). Statistics in medicine 2016. <http://onlinelibrary.wiley.com/doi/10.1002/sim.6893/full>

Recent developments in BART

- ▶ Xu, Daniels, Winterstein. Sequential BART for imputation of missing covariates. Biostatistics 2016.
<https://academic.oup.com/biostatistics/article-lookup/doi/10.1093/biostatistics/kxw009>
- ▶ Linero. Bayesian regression trees for high dimensional prediction and variable selection. JASA 2016.
<http://dx.doi.org/10.1080/01621459.2016.1264957>
- ▶ Entezari, Craiu et al. Likelihood inflating sample algorithm.
<https://arxiv.org/abs/1605.02113>
- ▶ Murray. Log-linear Bayesian Additive Regression Trees for categorical and count responses.
<https://arxiv.org/abs/1701.01503>
- ▶ Linero, Yang. Bayesian regression tree ensembles that adapt to smoothness and sparsity.
<https://arxiv.org/abs/1707.09461>