Nonparametric Bayesian Methods: Models, Algorithms, and Applications

Tamara Broderick
ITT Career Development Assistant Professor
Electrical Engineering & Computer Science
MIT
Applications
Applications
Applications

[US CDC PHIL; Futoma, Hariharan, Heller 2017]
Applications

WIKIPEDIA

[US CDC PHIL; Futoma, Hariharan, Heller 2017]

[Chati, Balakrishnan 2017]
Applications

[US CDC PHIL; Futoma, Hariharan, Heller 2017]

[Chati, Balakrishnan 2017]
Applications

“Wikipedia phenomenon”

[US CDC PHIL; Futoma, Hariharan, Heller 2017]

[Chati, Balakrishnan 2017]

[Sudderth, Jordan 2009]
Applications

“Wikipedia phenomenon”

[US CDC PHIL; Futoma, Hariharan, Heller 2017]

[Chati, Balakrishnan 2017]

[Sudderth, Jordan 2009]
Applications

[Ed Bowlby, NOAA]

[US CDC PHIL; Futoma, Hariharan, Heller 2017]

[Chati, Balakrishnan 2017]

[Sudderth, Jordan 2009]
Applications

[Wikipedia.org]

[Ed Bowlby, NOAA]

[US CDC PHIL; Futoma, Hariharan, Heller 2017]

[Ewens 1972; Hartl, Clark 2003]

[Chati, Balakrishnan 2017]

[Sudderth, Jordan 2009]
Applications

WIKIPEDiA

[Ed Bowlby, NOAA]

[Ewens 1972; Hartl, Clark 2003]

[US CDC PHIL; Futoma, Hariharan, Heller 2017]

[Gramacy, Lee 2009]

[Chati, Balakrishnan 2017]

[Sudderth, Jordan 2009]
Applications

[Ed Bowlby, NOAA]

[Ewens 1972; Hartl, Clark 2003]

[US CDC PHIL; Futoma, Hariharan, Heller 2017]

[Gramacy, Lee 2009]

[Chati, Balakrishnan 2017]

[Saria et al 2010]

[Sudderth, Jordan 2009]
Applications

- Wikipedia
- Ed Bowlby, NOAA
- Saria et al. 2010
- US CDC PHIL; Futoma, Hariharan, Heller 2017
- Gramacy, Lee 2009
- Chati, Balakrishnan 2017
- Ewens 1972; Hartl, Clark 2003
- Datta, Banerjee, Finley, Gelfand 2016
- Sudderth, Jordan 2009
Applications

[Saria et al 2010]

[US CDC PHIL; Futoma, Hariharan, Heller 2017]

[Warren 1972; Hartl, Clark 2003]

[Prabhakaran, Azizi, Carr, Pe’er 2016]

[Datta, Banerjee, Finley, Gelfand 2016]

[Chati, Balakrishnan 2017]

[wikipedia.org]
Applications

[Saria et al 2010]

[US CDC PHIL; Futoma, Hariharan, Heller 2017]

[Gramacy, Lee 2009]

[Chati, Balakrishnan 2017]

[Wikipedia.org]

[Ed Bowlby, NOAA]

[Ewens 1972; Hartl, Clark 2003]

[Prabhakaran, Azizi, Carr, Pe’er 2016]

[Datta, Banerjee, Finley, Gelfand 2016]

[Sudderth, Jordan 2009]
Applications

[Wikipedia]

[Ed Bowlby, NOAA]

[Saria et al 2010]

[US CDC PHIL; Futoma, Hariharan, Heller 2017]

[Gramacy, Lee 2009]

[Chati, Balakrishnan 2017]

[Ewens 1972; Hartl, Clark 2003]

[Prabhakaran, Azizi, Carr, Pe’er 2016]

[Datta, Banerjee, Finley, Gelfand 2016]

[Deisenroth, Fox, Rasmussen 2015]
Applications

[Ed Bowlby, NOAA]

[US CDC PHIL; Futoma, Hariharan, Heller 2017]

[Chati, Balakrishnan 2017]

[Saria et al 2010]

[Wikipedia.org]

[Gramacy, Lee 2009]

[Deisenroth, Fox, Rasmussen 2015]

[Edens 1972; Hartl, Clark 2003]

[US CDC PHIL; Futoma, Hariharan, Heller 2017]

[Sudderth, Jordan 2009]

[Prabhakaran, Azizi, Carr, Pe’er 2016]

[Kiefel, Schuler, Hennig 2014]

[Datta, Banerjee, Finley, Gelfand 2016]
Applications

[Ed Bowlby, NOAA]

[Wikipedia.org]

[Saria et al 2010]

[US CDC PHIL; Futoma, Hariharan, Heller 2017]

[Gramacy, Lee 2009]

[Chati, Balakrishnan 2017]

[Fox et al 2014]

[Lloyd et al 2012; Miller et al 2010]

[Sudderth, Jordan 2009]

[Prabhakaran, Azizi, Carr, Pe’er 2016]

[Kiefel, Schuler, Hennig 2014]

[Datta, Banerjee, Finley, Gelfand 2016]

[Deisenroth, Fox, Rasmussen 2015]

[Ewens 1972; Hartl, Clark 2003]

[Ewens 1972; Hartl, Clark 2003]

[US CDC PHIL; Futoma, Hariharan, Heller 2017]

[Gramacy, Lee 2009]

[Chati, Balakrishnan 2017]
Applications

[Wikipedia.org]

[Ed Bowlby, NOAA]

[US CDC PHIL; Futoma, Hariharan, Heller 2017]

[Gramacy, Lee 2009]

[Saria et al 2010]

[Ewens 1972; Hartl, Clark 2003]

[Fox et al 2014]

[Lloyd et al 2012; Miller et al 2010]

[Prabhakaran, Azizi, Carr, Pe’er 2016]

[Kiefel, Schuler, Hennig 2014]

[Sudderth, Jordan 2009]

[Datta, Banerjee, Finley, Gelfand 2016]

[Deisenroth, Fox, Rasmussen 2015]
Applications

[Saria et al 2010]

[US CDC PHIL; Futoma, Hariharan, Heller 2017]

[Gramacy, Lee 2009]

[Chati, Balakrishnan 2017]

[Wikipedia.org]

[Ed Bowlby, NOAA]

[Fox et al 2014]

[Lloyd et al 2012; Miller et al 2010]

[Ewens 1972; Hartl, Clark 2003]

[Prabhakaran, Azizi, Carr, Pe’er 2016]

[Kiefel, Schuler, Hennig 2014]

[Sudderth, Jordan 2009]

[Datta, Banerjee, Finley, Gelfand 2016]

[Deisenroth, Fox, Rasmussen 2015]
Applications

[Ed Bowlby, NOAA]

[Saria et al 2010]

[US CDC PHIL; Futoma, Hariharan, Heller 2017]

[Gramacy, Lee 2009]

[Chati, Balakrishnan 2017]

[Fox et al 2014]

[Ewens 1972; Hartl, Clark 2003]

[Prabhakaran, Azizi, Carr, Pe’er 2016]

[Kiefel, Schuler, Hennig 2014]

[Deisenroth, Fox, Rasmussen 2015]

[Lloyd et al 2012; Miller et al 2010]

[Sudderth, Jordan 2009]
Beta distribution

![Beta distribution graph showing different densities for various parameters.](image-url)