The lstbayes package

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1 Introduction

This package provides language drivers for the listings package for the several Bayesian modeling languages: BUGS, JAGS, and Stan.

2 Usage

See the documentation of the listings package.

3 Implementation

```
1 \RequirePackage{listings}
```

3.1 BUGS

Language driver for BUGS, including WinBUGS and OpenBUGS. The driver is based on OpenBUGS v. 3.2.3.

```
2 \lstdefinelanguage{BUGS}{
3   keywords=[1]{for,in,model,T,I,C},%
4   morecomment=[l]{\#},%
5   sensitive=true,%
6   alsoletter={.},%
7   otherkeywords={<-,~},%
8   literate={<-}{{$\leftarrow$}}1 {~}{{$\sim$}}1%
9 }
10 \lstalias[]{OpenBUGS}[]{BUGS}
11 \lstalias[]{WinBUGS}[]{BUGS}
```

3.2 JAGS

Language driver for JAGS. The driver is based on JAGS version 3.4.0 (Sept 4, 2013).

```
12 \lstdefinelanguage[]{JAGS}[]{BUGS}{
```

```
13    morekeywords=[1]{data,var,const},%
14    morecomment=[n]{/*}{*/}%
15 }
```

3.3   Stan

Language driver for Stan. The driver is based on Stan modeling language version 2.8.0 (Sept 8, 2015).

```
16 \lstdefinelanguage{Stan}{
17    keywords=[1]{functions,data,parameters,transformed,model,generated,quantities,%
18      for,in,while,print,if,else,lp__,lower,upper,increment_log_prob,T,return,%
19      reject,integrate_ode},%
20    keywords=[2]{int,real,vector,%
21      ordered,positive_ordered,simplex,unit_vector,%
22      row_vector,matrix,%
23      cholesky_factor_corr,cholesky_factor_cov,%
24      coor_matrix,cov_matrix,%
25      void}%
26    otherkeywords={<-,~},%
27    sensitive=true,%
28    morecomment=[l]{\#},%
29    morecomment=[l]{//},%
30    morecomment=[n]{/*}{*/},%
31    string=[d]"%,
32    literate={<-}{{$\leftarrow$}}1 {~}{{$\sim$}}1%
33 }
```