References of the methods

Muhammad Yaseen

2026-11-04

Table of contents

1 How to cite **1**

2 References by method **2**
2.1 Bayesian AMMI and GGE models 2
2.2 Bayesian stability models 2
2.3 Stability indices 3
2.4 Decisions 4
2.5 Model choice and checking 4

1 How to cite

Cite the package and the methods you used. `citation("bayesammi")` gives the package and the paper of every method in the package:

```
citation(package = "bayesammi")
```

`bam_cite()` gives the references of the methods behind one result, as text or BibTeX, and every printed result and interpretation ends with its sources:

```
g <-
  ge_ammi(
      .data = Maiz
    , .y    = y
    , .gen  = entry
    , .env  = site
    , .rep  = rep
    )
bam_cite(
    x     = g
  , style = c("text", "bibtex")[2]
  )
```

```
@Article{Crossa2011,
```

```
  title = {Bayesian Estimation of the Additive Main Effects and Multiplicative Interaction M
  author = {Jose Crossa and Sergio Perez-Elizalde and Diego Jarquin and Jose Miguel Cotes an
  journal = {Crop Science},
  year = {2011},
  volume = {51},
  number = {4},
  pages = {1458--1469},
  doi = {10.2135/cropsci2010.06.0343},
}
```

All references are also in a BibTeX file installed with the package:

```
basename(system.file("REFERENCES.bib", package = "bayesammi"))
```

```
[1] "REFERENCES.bib"
```

2 References by method

2.1 Bayesian AMMI and GGE models

- Crossa, J., Perez-Elizalde, S., Jarquin, D., Cotes, J. M., Viele, K., Liu, G. and Cornelius, P. L. (2011). Bayesian estimation of the additive main effects and multiplicative interaction model. Crop Science, 51(4), 1458-1469. doi:10.2135/cropsci2010.06.0343
- Perez-Elizalde, S., Jarquin, D. and Crossa, J. (2012). A general Bayesian estimation method of linear-bilinear models applied to plant breeding trials with genotype x environment interaction. Journal of Agricultural, Biological, and Environmental Statistics, 17(1), 15-37. doi:10.1007/s13253-011-0063-9
- Viele, K. and Srinivasan, C. (2000). Parsimonious estimation of multiplicative interaction in analysis of variance using Kullback-Leibler information. Journal of Statistical Planning and Inference, 84(1-2), 201-219.
- Hoff, P. D. (2009). Simulation of the matrix Bingham-von Mises-Fisher distribution, with applications to multivariate and relational data. Journal of Computational and Graphical Statistics, 18(2), 438-456. doi:10.1198/jcgs.2009.07177
- Yan, W., Hunt, L. A., Sheng, Q. and Szlavnics, Z. (2000). Cultivar evaluation and mega-environment investigation based on the GGE biplot. Crop Science, 40(3), 597-605. doi:10.2135/cropsci2000.403597x

2.2 Bayesian stability models

- Finlay, K. W. and Wilkinson, G. N. (1963). The analysis of adaptation in a plant-breeding programme. Australian Journal of Agricultural Research, 14(6), 742-754. doi:10.1071/AR9630742
- Eberhart, S. A. and Russell, W. A. (1966). Stability parameters for comparing varieties. Crop Science, 6(1), 36-40. doi:10.2135/cropsci1966.0011183X000600010011x

- Shukla, G. K. (1972). Some statistical aspects of partitioning genotype-environmental components of variability. Heredity, 29(2), 237-245. doi:10.1038/hdy.1972.87
- Lian, L. and de los Campos, G. (2016). FW: an R package for Finlay-Wilkinson regression that incorporates genomic/pedigree information and covariance structures between environments. G3: Genes, Genomes, Genetics, 6(3), 589-597. doi:10.1534/g3.115.026328
- Oliveira, T. R. A., Carvalho, H. W. L., Nascimento, M., Costa, E. F. N., Amaral Junior, A. T., Gravina, G. A. and Carvalho Filho, J. L. S. (2018). The Eberhart and Russell's Bayesian method used as an instrument to select maize hybrids. Euphytica, 214, 64. doi:10.1007/s10681-018-2146-y
- Edwards, J. W. and Jannink, J.-L. (2006). Bayesian modeling of heterogeneous error and genotype x environment interaction variances. Crop Science, 46(2), 820. doi:10.2135/cropsci2005.0164
- Eskridge, K. M. (1990). Selection of stable cultivars using a safety-first rule. Crop Science, 30, 369-374.

2.3 Stability indices

- Wricke, G. (1962). Uber eine Methode zur Erfassung der okologischen Streubreite in Feldversuchen. Zeitschrift fur Pflanzenzuchtung, 47, 92-96.
- Lin, C. S. and Binns, M. R. (1988). A superiority measure of cultivar performance for cultivar x location data. Canadian Journal of Plant Science, 68(1), 193-198. doi:10.4141/cjps88-018
- Annicchiarico, P. (1992). Cultivar adaptation and recommendation from alfalfa trials in Northern Italy. Journal of Genetics and Breeding, 46, 269-278.
- Purchase, J. L., Hatting, H. and van Deventer, C. S. (2000). Genotype x environment interaction of winter wheat (Triticum aestivum L.) in South Africa: II. Stability analysis of yield performance. South African Journal of Plant and Soil, 17(3), 101-107.
- Sneller, C. H., Kilgore-Norquest, L. and Dombek, D. (1997). Repeatability of yield stability statistics in soybean. Crop Science, 37(2), 383-390.
- Zobel, R. W. (1994). Stress resistance and root systems. In Proceedings of the Workshop on Adaptation of Plants to Soil Stress, INTSORMIL Publication 94-2, 80-99. Institute of Agriculture and Natural Resources, University of Nebraska-Lincoln.
- Zali, H., Farshadfar, E., Sabaghpour, S. H. and Karimizadeh, R. (2012). Evaluation of genotype x environment interaction in chickpea using measures of stability from AMMI model. Annals of Biological Research, 3(7), 3126-3136.
- Olivoto, T., Lucio, A. D. C., da Silva, J. A. G., Marchioro, V. S., de Souza, V. Q. and Jost, E. (2019). Mean performance and stability in multi-environment trials I: combining features of AMMI and BLUP techniques. Agronomy Journal, 111(6), 2949-2960. doi:10.2134/agronj2019.03.0220
- Farshadfar, E. (2008). Incorporation of AMMI stability value and grain

yield in a single non-parametric index (GSI) in bread wheat. Pakistan Journal of Biological Sciences, 11(14), 1791-1796.

2.4 Decisions

- Dias, K. O. G., dos Santos, J. P. R., Krause, M. D., Piepho, H.-P., Guimaraes, L. J. M., Pastina, M. M. and Garcia, A. A. F. (2022). Leveraging probability concepts for cultivar recommendation in multi-environment trials. Theoretical and Applied Genetics. doi:10.1007/s00122-022-04041-y

2.5 Model choice and checking

- Spiegelhalter, D. J., Best, N. G., Carlin, B. P. and van der Linde, A. (2002). Bayesian measures of model complexity and fit. Journal of the Royal Statistical Society B, 64(4), 583-639. doi:10.1111/1467-9868.00353
- Watanabe, S. (2010). Asymptotic equivalence of Bayes cross validation and widely applicable information criterion in singular learning theory. Journal of Machine Learning Research, 11, 3571-3594.
- Vehtari, A., Gelman, A. and Gabry, J. (2017). Practical Bayesian model evaluation using leave-one-out cross-validation and WAIC. Statistics and Computing, 27(5), 1413-1432. doi:10.1007/s11222-016-9696-4
- Gelman, A., Meng, X.-L. and Stern, H. (1996). Posterior predictive assessment of model fitness via realized discrepancies. Statistica Sinica, 6(4), 733-807.
- Gabry, J., Simpson, D., Vehtari, A., Betancourt, M. and Gelman, A. (2019). Visualization in Bayesian workflow. Journal of the Royal Statistical Society A, 182(2), 389-402. doi:10.1111/rssa.12378