

Structure of orthogonal segregated mixed models

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Abstract

A mixed model is segregated when its fixed effects part is structured as a sub-model. Commutative Jordan algebras are used to study the structure of orthogonal segregated models.

Keywords

Mixed models, Jordan algebras, Segregated models, Inference.

References

- Fonseca, M., J.T. Mexia, and R. Zmyślony (2007). Jordan algebras, generating pivot variables and orthogonal normal models. *J. Interdiscip. Math.* 1, 305–327.
- Fonseca, M., J.T. Mexia, and R. Zmyślony (2006). Binary Operations on Jordan algebras. *Linear Algebra Appl.* 117, 75–86.
- Fonseca, M., J.T. Mexia, and R. Zmyślony (2003). Estimators and tests for variance components in cross nested orthogonal designs. *Discuss. Math. Probab. Stat.* 23, 175–201.
- Jesus, V., P. Rodrigues, and J.T. Mexia (2007). Inference for random effects prime basis factorials using commutative Jordan algebras. *Discuss. Math. Probab. Stat.* Accepted.
- Jesus, V., S.Ferreira and J.T. Mexia (2007). Joint analysis of orthogonal normal models. *Discuss. Math. Probab. Stat.* Accepted.
- Zmyślony, R. (1980). Completeness for a family of normal distributions. *Mathematical Statistics, Banach Center Publ.* 6, 355–357.