

**Ehm, Werner; Kornmeier, Jürgen; Heinrich, Sven P.**  
**Multiple testing along a tree.** (English) [Zbl 1329.62212](#)  
*Electron. J. Stat.* 4, 461-471 (2010).

Summary: Suitable sequentially rejective multiple test procedures allow to “zoom in” on clusters of relevant variables in high-dimensional regression [*N. Meinshausen*, *Biometrika* 95, No. 2, 265–278 (2008; [Zbl 1437.62557](#))], or on regions of interest in some search space [the third author et al., “Conquer and divide: a novel approach to spatiotemporal significance testing that accounts for alpha error inflation”, *NeuroImage* 41, Suppl. 1, S159 (2008); *N. Meinshausen* et al., *Ann. Appl. Stat.* 3, No. 1, 38–60 (2009; [Zbl 1161.62087](#))]. As a common framework for these schemes we propose to consider multiple testing along a tree of hypotheses together with a “keep rejecting until first acceptance” rule. Particular topics addressed in this note are control of the familywise error, and some variants and basic properties of the procedure.

**MSC:**

[62G10](#) Nonparametric hypothesis testing  
[62J15](#) Paired and multiple comparisons; multiple testing  
[62L99](#) Sequential statistical methods

Cited in **2** Documents

**Keywords:**

conquer and divide; event-related potentials; familywise error; (nested) multiple testing; tree of hypotheses

**Full Text:** [DOI](#) [Euclid](#)

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