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Inferring the drivers of species diversification

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"Quasi-reaction models are both scientifically and computationally more convenient compared to master equation approaches for incorporating covariates in species diversification models."

"The art of data augmentation in the space of phylogenetic trees is crucial for a unified statistical inference paradigm of macroevolutionary dynamics."

"The different definitions of diversity can lead to opposite conclusions regarding its effect on species diversification."

"Species interactions are crucial in species diversification processes, but they are extremely challenging to incorporate in any analysis due to the lack of information. Phylogenetic diversity is a sensible proxy for species interactions and its inclusion in species diversification models can shine a light on the macroevolutionary process."

"A version of the anthropic principle is relevant in macroevolutionary analyses: likelihood-based methods should consider the probability of being able to analyse the clade that we choose to analyse. The theory of generalised additive models can provide accurate estimations of such likelihoods."

"Newly developed inference methods for species diversification models will substantially advance other fields."

"General inference of the mechanisms underlying diversification from phylogenetic trees requires a combination of modern statistical tools."

"Only with more than one tool, you can create something cool."