Ecology

Null model analysis of species associations using abundance data

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Abstract.

S

≤ S ≤

N_i i

=2 1

x_i ; N a

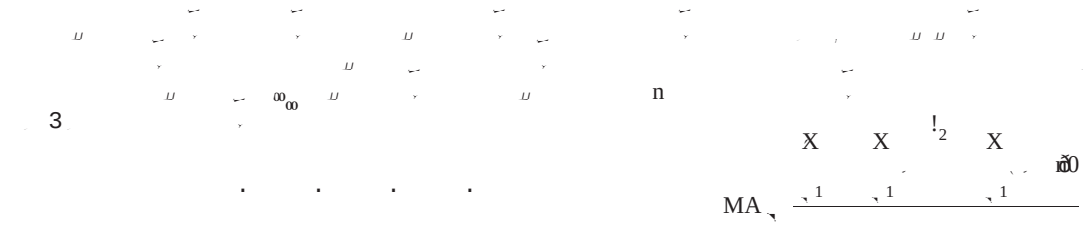
Matrix structures

Random matrices

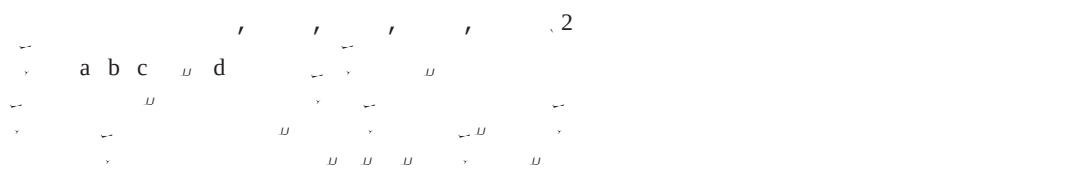
≤ n ≤

S_j , $S_j \leq S$

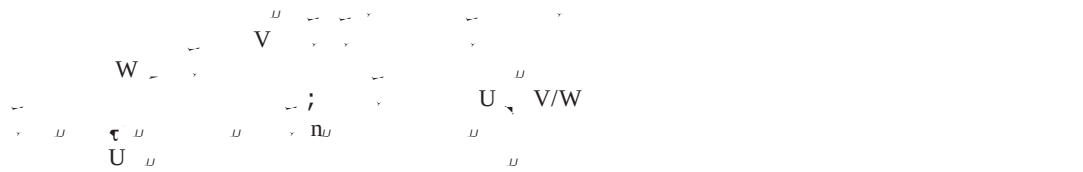
Empirical matrices 3



or



or



3 n 3 m

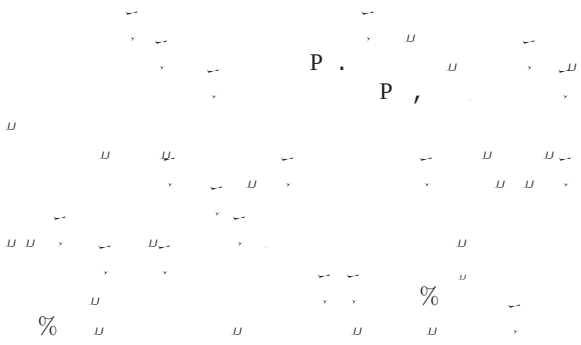
3

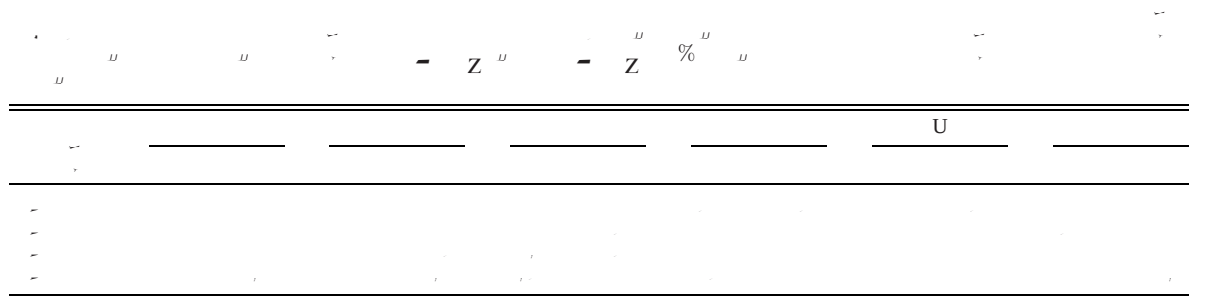
$$\begin{matrix}1 & 0\\ 0 & 1\end{matrix} \quad \text{or} \quad \begin{matrix}0 & 1\\ 1 & 0\end{matrix}$$

$$\begin{matrix}0 & 1\\ 1 & 0\end{matrix} \quad \text{or} \quad \begin{matrix}1 & 0\\ 0 & 1\end{matrix}$$

3 n 3 m

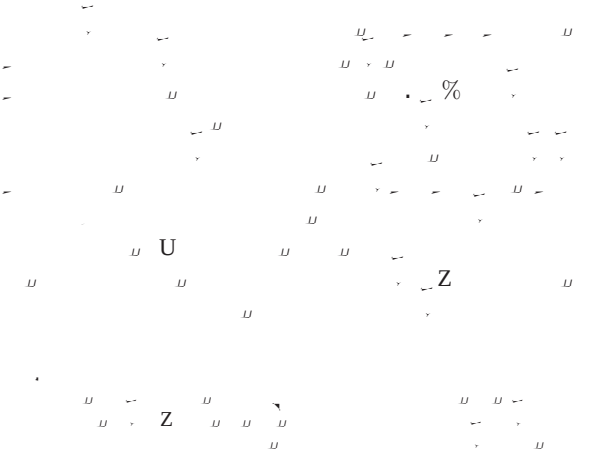
Diagnostic tests

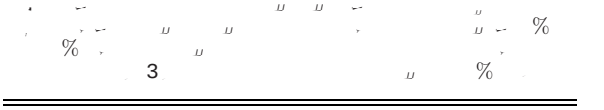




Note: Materials and methods: Strategies for evaluation of null model algorithms Covariance metrics

Performance of covariance metrics with random test matrices





		0.16		
	0.44	**0.26**	**0.30**	**0.31**
	0.31		**0.23**	**0.15**
		0.16		
	0.43	**0.26**	**0.29**	**0.31**
	0.29		**0.20**	
		0.17		
	0.23			
			0.18	
			0.15	
		0.17		
	0.18		**0.18**	
			0.19	
	0.54	**0.27**	**0.36**	**0.41**
	0.27	**0.21**		**0.21**

Note: P

Materials and methods: Strategies for evaluation of null model algorithms Covariance metrics

Meta-analysis of empirical abundance matrices

3

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%

Z

Z