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# Origin of compartmentalization in food webs

(Digital Appendices)

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M. E. J. Newman, and L. A. N. Amaral

## **B Confidence intervals for compartment properties**

To establish the significance of a given compartment property with respect to a model, we use the following procedure. For property  $p$ , we calculate the  $z$ -score  $z = (p_e - \langle p_M \rangle) / \sigma_{p_M}$ , where  $p_e$  is the empirical value of the property,  $\langle p_M \rangle$  is the mean of the property for the model, and  $\sigma_{p_M}$  is the standard deviation of the property for the model. We then estimate the 95% expectation of the model as the region for which  $|z| < 1.960$ , and the 99% expectation of the model as the region for which  $|z| < 2.576$ . This approximation is exact for properties that are normally distributed in the model (like the modularity) but not for non-normally distributed properties (like the number of compartments).