

Abstract Submitted  
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**A model of the world languages distribution**<sup>1</sup> AI-XIA FENG, DA-REN HE, College of Physics Science and Technology, Yangzhou University — The world language distribution is described by a bipartite graph. One kind of nodes is the languages; the other is the countries where some languages are used. When interested in interactions between the languages, we project the bipartite graph onto the language nodes and obtain a unipartite graph. After investigating the node strength distribution of the unipartite network we realize that the language distribution shows a kind of duality property. Thus, we set up a model to interpret and explain the property. Also, we explained, by using the model, the empirical results about the clustering coefficient distribution and the average nearest neighbor strength distribution.

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