Application of Visual Display Techniques to Solve Some Biological Problems

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Abstract

Visual displaying techniques have existed for a rather long time. In this talk, we shall show how the visual display techniques can be used to help biological analyze data. Furthermore, we shall show that the multi-dimensional scaling technique is a very useful tool to rotate protein 3-dimensional structures so that comparisons can be easily made on them. In other words, the similarity between two protein structures can be quickly determined after the rotation is done by the multidimensional scaling technique. We shall also show that we have successfully applied a relaxation method to the RNA folding problem. Given the logical structure of an RNA sequence, we can use the relaxation method to find the RNA physical structure.