



生物信息学研究中心

Center of Bioinformatics

学术报告

题目： Image Compression-based Approach to Measuring the Similarity of Protein Structures

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摘要： This talk proposes series of methods for measuring the similarity of protein structures. In the proposed methods, an original protein structure is transformed into a distance matrix, which is regarded as a two-dimensional image. Then, the similarity of two protein structures is measured by a kind of compression ratio of the concatenated image. We employed several image compression algorithms: JPEG, GIF, PNG, IFS, and SPC, and audio compression algorithms: MP3 and FLAC. We applied the proposed method to clustering of protein structures. The results of computational experiments suggest that SPC has the best performance.