



New Scoring Function for Modelling Side Chains

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A new scoring function is being developed to predict conformations of amino acid side chains given the backbone conformation. The method is based on a complementarity function (weighted contact surface areas) and a term for intra-residue interactions (derived from the probabilities of rotamers in a rotamer library).

The new function considers solvent interactions

in a simple way. So far, it has been tested for individual side chains (with all other side chains held fixed). The results are comparable to those of the latest studies in the field. We are currently working on an algorithm to spatially place several residues simultaneously with the goal of understanding the structure and stability of mutated proteins.