

Peer-reviewed Publications (since 2004)

- [1] Martin Madera, Ryan Calmus, Grant Thiltgen, Kevin Karplus, and Julian Gough. Improving protein secondary structure prediction using a simple k-mer model. *Bioinformatics*, 26(5):596–602, March 2010. doi:[10.1093/bioinformatics/btq020](https://doi.org/10.1093/bioinformatics/btq020)
- [2] Elmar Krieger, Keehyoung Joo, Jinwoo Lee, Jooyoung Lee, Srivatsan Raman, James Thompson, Mike Tyka, David Baker, and Kevin Karplus. Improving physical realism, stereochemistry and side-chain accuracy in homology modeling: four approaches that performed well in CASP8. *Proteins: Structure, Function, and Bioinformatics*, 77(S9):114–122, 12 August 2009. CASP8 special issue. doi:[10.1002/prot.22570](https://doi.org/10.1002/prot.22570)
- [3] John G. Archie, Martin Paluszewski, and Kevin Karplus. Applying undertaker to quality assessment. *Proteins: Structure, Function, and Bioinformatics*, 77(S9):191–195, 12 August 2009. CASP8 special issue. doi:[10.1002/prot.22508](https://doi.org/10.1002/prot.22508)
- [4] Kevin Karplus. SAM-T08, HMM-based protein structure prediction. *Nucleic Acids Research*, 37(Web Server Issue):W492–W497, 2009. doi:[10.1093/nar/gkp403](https://doi.org/10.1093/nar/gkp403)
- [5] Firas Khatib, Carol A. Rohl, and Kevin Karplus. Pokefind: a novel topological filter for use with protein structure prediction. *Bioinformatics*, 25(12):i281–i288, 2009. Presented at ISMB/ECCB 2009. doi:[10.1093/bioinformatics/btp198](https://doi.org/10.1093/bioinformatics/btp198)
- [6] John Archie and Kevin Karplus. Applying undertaker cost functions to model quality assessment. *Proteins: Structure, Function, and Bioinformatics*, 75(3):550–555, 2009. published online 30 Sep 2008. doi:[10.1002/prot.22288](https://doi.org/10.1002/prot.22288)
- [7] Martin Paluszewski and Kevin Karplus. Model quality assessment using distance constraints from alignments. *Proteins: Structure, Function, and Bioinformatics*, 75(3):540–549, 2009. doi:[10.1002/prot.22262](https://doi.org/10.1002/prot.22262)
- [8] Sol Katzman, Christian Barrett, Grant Thiltgen, Rachel Karchin, and Kevin Karplus. Predict-2nd: a tool for generalized protein local structure prediction. *Bioinformatics*, 24(21):2453–2459, 1 November 2008. doi:[10.1093/bioinformatics/btn438](https://doi.org/10.1093/bioinformatics/btn438)
- [9] George Shackelford and Kevin Karplus. Contact prediction using mutual information and neural nets. *Proteins: Structure, Function, and Bioinformatics*, 69(S8):159–164, 2007. doi:[10.1002/prot.21791](https://doi.org/10.1002/prot.21791)
- [10] Jiunn C. N. Fong, Kevin Karplus, Gary K. Schoolnik, and Fitnat H. Yildiz. Identification and characterization of RbmA, a novel protein required for the development of rugose colony morphology and biofilm structure in *Vibrio cholera*. *Journal of Bacteriology*, 188(3):1049–1059, February 2006.
- [11] Oscar Hur and Kevin Karplus. Methods of translating NMR proton distances into their corresponding heavy atom distances for protein structure prediction with limited experimental data. *Protein Engineering, Design and Selection*, 18(12):597–605, December 2005.
- [12] Kevin Karplus, Sol Katzman, George Shackelford, Martina Koeva, Jenny Draper, Bret Barnes, Marcia Soriano, and Richard Hughey. SAM-T04: what's new in protein-structure prediction for CASP6. *Proteins: Structure, Function, and Bioinformatics*, 61(S7):135–142, 2005. doi:[10.1002/prot.20730](https://doi.org/10.1002/prot.20730)
- [13] Kevin Karplus, Rachel Karchin, George Shackelford, and Richard Hughey. Calibrating E-values for hidden Markov models with reverse-sequence null models. *Bioinformatics*, 21(22):4107–4115, 2005. doi:[10.1093/bioinformatics/bti629](https://doi.org/10.1093/bioinformatics/bti629)

- [14] Andrea Di Blas, David Dahle, Mark Diekhans, Leslie Grate, Jeffrey Hirschberg, Kevin Karplus, Hansjorg Keller, Francisco J. Kendrick, Mark Mesa-Martinez, David Pease, Eric Rice, Angela Schmid, Don Speck, and Richard Hughey. The UCSC Kestrel parallel processor. *IEEE Transactions on Parallel and Distributed Systems*, 16(1):80–92, January 2005.
- [15] T. J. Dolinsky, P. M. J. Burgers, K. Karplus, and N. A. Baker. SPrCY: comparison of structural predictions in the *Saccharomyces cerevisiae* genome. *Bioinformatics*, 20(14):2312–2314, April 2004.
- [16] Rachel Karchin, Melissa Cline, and Kevin Karplus. Evaluation of local structure alphabets based on residue burial. *Proteins: Structure, Function, and Genetics*, 55(3):508–518, 5 March 2004. <http://www3.interscience.wiley.com/cgi-bin/abstract/107632554> ABSTRACT doi:10.1002/prot.20008