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**Michael A. Langston\*** ([langston@cs.utk.edu](mailto:langston@cs.utk.edu)). *Fixed-Parameter Tractability: Background, Recent Progress, and Applications in Computational Biology.*

This AMS special session is about fruitful interplays between discrete mathematics and biology. One such interplay is based on fixed-parameter tractability (henceforth FPT), whose origins can be traced back nearly twenty years to early work by Fellows and Langston on applications of well-quasi order theory. Since that time much progress has been made. In fact something of a cottage industry in FPT algorithm design is now flourishing, with research groups and workshops held around the world. This talk will review the mathematical foundations of FPT, recent advances in its study, and how FPT has found utility in computational biology. Sample applications include transcriptomics, proteomics and phylogeny. (Received August 30, 2005)