

# Jan Mrázek's CV

## EDUCATION

Institution	Degree	Year	Field of study
Academy of Sciences of the Czech Republic, Institute of Biophysics, Brno, Czech Republic	PhD	1992	Biophysics
Masaryk University, Brno, Czech Republic	MS	1988	Solid state physics

## RESEARCH AND PROFESSIONAL EXPERIENCE

Years	Position	Institution
2005 - present	Assistant Professor	Department of Microbiology and Institute of Bioinformatics, University of Georgia, Athens, GA
1999 - 2005	Research associate	Department of Mathematics, Stanford University, Stanford, CA
1995 - 1999	Postdoctoral research associate	Department of Mathematics, Stanford University, Stanford, CA
1992 - 1995	Postdoctoral research associate	Academy of Sciences of the Czech Republic, Institute of Biophysics, Brno, Czech Republic
1988 - 1992	Graduate Student	Academy of Sciences of the Czech Republic, Institute of Biophysics, Brno, Czech Republic

## RESEARCH INTERESTS

Discovery and interpretation of patterns in genomic DNA sequences; structure and evolution of microbial genomes; comparative genomics; bioinformatics; development of methods and computer programs for analyses of genomic DNA sequences.

Past research projects:

- Analyses of codon usage biases.
- Predicting highly expressed and alien genes – relationships to organisms' metabolism, lifestyles and habitats.
- Compositional analysis of DNA sequences: evolutionary and functional aspects of sequence heterogeneity within and between genomes, DNA strand asymmetry, genome signature.
- Gene finding in prokaryotic genomes.

- Detection and interpretations of statistically significant nucleotide and amino acid patterns in DNA and protein sequences (amino acid, oligonucleotide and codon runs, alternating patterns, palindromes, microsatellite repeats, periodic patterns, clusters of markers).
- Protein secondary structure prediction.

#### AWARDS

- 2007 Ralph E. Powe Junior Faculty Enhancement Award by Oak Ridge Associated Universities
- 1994 Academy of Sciences of the Czech Republic Award for Young Scientists for the work "Interpretations of the information encoded in protein and nucleic acid sequences"

#### PROFESSIONAL MEMBERSHIP:

Society for Molecular Biology and Evolution  
American Society for Microbiology