

Costas D. Maranas (b. 1967) is the Donald B. Broughton Professor in the Department of Chemical Engineering at The Pennsylvania State University. He received a Diploma in Chemical Engineering at the Aristotle University, Greece in 1990 and a Ph.D. in Chemical Engineering from Princeton University in 1995. He has been in the faculty of the department of Chemical Engineering at Penn State since 1995. He is the recipient of the Allan P. Colburn Award for Excellence in Publications by a Young Member of AIChE (2002), the Outstanding Young Investigator Award of the Computing and Systems Technology AIChE Division (2006), the S.V. Sotirchos Lectureship at 6th Panhellenic Chemical Engineering Conference (2007), the Penn State Engineering Alumni Society (PSEAS) Premier Research Award (2016) and Outstanding Research Award in (2012). He is a member of a number of journal Editorial Boards including PLOS Computational Biology, BMC Systems Biology, Biotechnology Journal and Metabolic Engineering. He is a Fellow of the American Institute of Medical and Biological Engineering (AIMBE). He is a member of advisory/steering committees for PNNL/EMSL and EcoCyc and the “Use Inspired Research” Lead in the Center for Bioenergy Innovation (CBI) DOE center.

The C. Maranas group develops and deploys computational framework informed by systems engineering and mathematical optimization to understand, analyze and redesign metabolism and proteins. Research interests include: Computational protein design; enzyme and antibody engineering; design of protein pores for bioseparations; reconstruction, curation and analysis of metabolic networks; computational strain design and synthetic biology; metabolism of photosynthetic organisms; metabolism of obligatory anaerobes; modeling of microbial communities; optimization theory and algorithms. He has co-authored over 160 refereed journal publications including a textbook on “Optimization Methods in Metabolic Networks” (2016). He has supervised 32 PhD theses with many group alumni occupying leading positions in industry and academia. He lives in State College, PA with his wife and children.