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 recent recipient of the 2020 Biotechnology Progress Award for Excellence in Biological Engineering Publication and the 2020 International Metabolic Engineering Award. Earlier awards include the Allan P. Colburn Award for Excellence in Publications by a Young Member of AIChE (2002) and the Outstanding Young Investigator Award of the Computing and Systems Technology AIChE Division (2006). Penn State recognitions include the Engineering Alumni Society (PSEAS) Premier (2016) and Outstanding (2012) Research Award. 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 Chemical Engineers (AIChE) and the American Institute of Medical and Biological Engineering (AIMBE). He is the Lead for the "Use Inspired Research" in the Center for Bioenergy Innovation (CBI) DOE center, a participant in the Center for Advanced Bioenergy and Bioproducts Innovation (CABBI) DOE center, and a member of the leadership team of the NSF Molecular Maker Lab Institute (MMLI).

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 200 refereed journal publications and proceedings including a textbook on "Optimization Methods in Metabolic Networks" (2016). He has supervised 36 PhD theses with many group alumni occupying leading positions in industry and academia. He lives in State College, PA with his wife and children.