This proposal focuses on promoting the use of mathematical sciences, in particular applied mathematics, statistics and computer science as an industrial resource. The goal is to do this within an interdisciplinary setting, emphasizing technology transfer, education and knowledge dissemination for industry and government applications organized by a specially tailored Structured Research Center, whose nucleus already exists at USP.

The Center's main strategy is to build a strong infrastructure with regard to human resources, advanced computational equipment, collaboration opportunities and other facilities to promote interdisciplinary cooperation with industry and, more specifically, with the manufacturing, government and service sectors.

The Center will encourage academic research groups to collaborate on effective applications and produce new scientific knowledge. The core groups in the Center have demonstrated experience in producing academic work of high quality in their areas of activity and also in relevant applications, evidence of which will be provided in the Technology Transfer section of this project. The core groups and their collaborators will continue with their usual scientific activities, enhanced by the interaction opportunities created by the Center, and at the same time, emphasize the critical role that mathematics plays across all industries.

Host Institution

University of São Paulo (USP, campus São Carlos)

Associated Institutions

State University of Campinas (UNICAMP)
São Paulo State University (UNESP)
Aerospace Science and Technology Departament (DCTA)
Federal University of São Carlos (UFSCar)
Pontifical Catholic University of Rio de Janeiro (PUC-RJ)

Principal Investigator

José Alberto Cuminato, USP

Education and Knowledge Diffusion Coordinator

José Carlos Maldonado, USP

Technology Transfer Coordinator

Francisco Louzada Neto, USP

Co-Principal Investigators

Andre Carlos Ponce de Leon Ferreira de Carvalho, USP
Antonio Castelo Filho, USP
Débora Pretti Ronconi, USP
Eduardo Raul Hruschka, USP
Ernesto Julián Goldberg Birgin, USP
Francisco Louzada Neto, USP
Geraldo Nunes Silva, UNESP
Gustavo Carlos Buscaglia, USP
João Luiz Filgueiras de Azevedo, DCTA
José Carlos Maldonado, USP
José Mario Martinez Perez, UNICAMP
Julio Michael Stern, USP
Marcos Nereu Arenales, USP
Murilo Francisco Tome, USP
Paulo Morelato França, UNESP
Reinaldo Morabito Neto, UFSCar
Roberto Andreani, UNICAMP
Ronaldo Dias, UNICAMP
Sandra Augusta Santos, UNICAMP
Yvonne Primerano Mascarenhas, USP
Zhao Liang, USP

Associated Researchers

Adolfo Gomes Marto
Alvaro Rodolfo de Pierro, UNICAMP
Ana Cristina Avelar Batista de Jesus, DCTA
Bruno Feres de Souza
Cassio Machiaveli Oishi, UNESP
Edson dos Santos Moreira, USP
Eduardo Marques, USP
Ellen Francine Barbosa, USP
Estevam Rafael Hruschka Junior, UFSCar
Leandro Franco de Souza, USP
Luis Gustavo Nonato, USP
Maria Carolina Monard, USP
Mario de Castro Andrade Filho, USP
Nikolai Valtchev Kolev, USP
Paulo Afonso Faria da Veiga, USP
Paulo Jose da Silva e Silva, UNICAMP
Pedro Jose de Oliveira Neto
Roberto Gil Annes da Silva, DCTA
Rodrigo Fernandes de Mello, USP
Thiago Alexandre Salgueiro Pardo, USP
Vicente Garibay Cancho, USP
Vitoriano Ruas de Barros Santos, PUC-RJ
William Roberto Wolf, UNICAMP