

# Introducción a Calendarización en Sistemas Paralelas, Grids y Nubes

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El objetivo del taller es familiarizar participantes con los distintos métodos para optimización los recursos, así como proporcionarles las herramientas fundamentales en el análisis y técnicas de diseño de algoritmos para problemas provenientes de computación, transporte, deportes, manufactura y sistemas de tiempo real. Los alumnos deben aprender los conceptos de problemas de optimización de recursos en sistemas paralelas, distribuidas, GRID computacional, y nubes. Se pretende enseñar a los estudiantes aquellas partes de la teoría de investigación de operaciones y optimización combinatoria que se aplican para la resolución de problemas teóricos y prácticos, y familiarizar con áreas de aplicación, notaciones básicos, modelos de calendarización, calendarización en procesadoras, sistemas operativos, producción, optimizando diferentes criterios, como longitud de calendario, criterios de sistemas de tiempo real, etc.



**Andrei Tchernykh** is a professor in the Computer Science Department, CICESE Research Center, Ensenada, Baja California, Mexico. He is a head of the Parallel Computing Laboratory. He graduated from the Sevastopol Technical University with honor in 1975. From 1975 to 1990 he was with the Institute of Precision Mechanics and Computer Engineering of the Russian Academy of Sciences (IPMCE, Moscow, Russia). He received the Ph.D. in Computer Science from IPMCE in 1986. He gained industrial experience as team leader, and leading designer for Advance Technical Products Corp, and Supercomputer Design Department of Electro-Mechanical Enterprise, Russian leaders in HPC design and development. His scientific expertise is awarded by Level 2 in National System of Researchers, Mexico. He was awarded to serve as a Visiting Professor at prestigious universities like Luxembourg University, Dortmund University, Germany, Technische Universität Clausthal, Germany, Institut National Polytechnique de Grenoble, France, University of California–Irvine, USA, University of Southern California, USA, Université Joseph Fourier, France, etc. Prof. Tchernykh has been served as PI for a number of research projects and grants (CONACYT, NSF, UC MEXUS, DAAD, LAFMI, UJF, INPG, REDII, FUMEC, etc.). His international reputation and competence are confirmed by delivering 46 keynote speeches and invited lectures, serving as a program committee member of more than 60 professional peer-reviewed conferences, and organizing 11 of them. He is active in grid and cloud research with a focus on resource optimization, both, theoretical and experimental, scheduling, load balancing, multi-objective optimization, heuristics and meta-heuristics, adaptive resource allocation, and scalable energy-aware algorithms (<http://usuario.cicese.mx/~chernykh/>).