Joint Brazil-Chile-Inria MS on Innovative Numerical Methods for Fluids

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The Inria-Brazil (project.inria.fr/inriabrasil/) and Inria-Chile international programs have been a successful initiative with several collaborative projects involving researchers from France, Brazil and Chile from universities, research centers and companies, particularly in the areas of computer science and applied mathematics. In this context, this mini-symposium aims to bring together new trends in the development of innovative numerical methods (finite element and finite volume methods, multi-scale methods, domain decomposition, etc.) for fluid flow simulation adapted to high-performance computing and their interaction with machine learning techniques. The focus of this mini-symposium also includes the challenges and contributions to the mathematical analysis and computational implementation of these new methods, as well as their applications in the computational simulation of realistic fluid problems.