

Paper Template of Ninth International Conference on Computational Fluid Dynamics in Istanbul, Turkey, 2016

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Abstract: The body of your abstract belongs here. ICCFD is the outcome of the merger of two important CFD conferences: the International Conference on Numerical Methods in Fluid Dynamics, ICNMF (since 1969) and International Symposium on Computational Fluid Dynamics, ISCFD (since 1985). The first ICCFD conference was held in 2000 in Kyoto, the second in 2002 in Sydney, the third in 2004 in Toronto, the fourth in 2006 in Ghent, the fifth in 2008 in Seoul, the sixth in 2010 in St Petersburg, the seventh in Hawaii in 2012, the eighth in 2014 in Chengdu, and the ninth conference, ICCFD9, will be held in Istanbul, Turkey in July 11-15, 2015.

Keywords: Numerical Algorithms, Computational Fluid Dynamics, Turbulence Modeling, Aeroacoustics.

1 Introduction

This is the main part of the paper. Its length must be **1-2 pages**, including key figures and references. It can be divided in as many sections as you decide. The paper must be prepared using this template and compiled using standard LATEX, generating a **PDF file** that will be finally uploaded. If another kind of word processor is utilized, please adhere to the formatting provided in the PDF template.

2 Problem Statement

This document allows you to easily include references [1, 2], equations, figures (see Figure 1) or anything else you desire into a clean and compact environment of LATEX. For example if you'd like to impress a date you can write the unsteady heat equation as

$$\frac{\partial V}{\partial t} - \alpha \left(\frac{\partial^2 V}{\partial x^2} + \frac{\partial^2 V}{\partial y^2} + \frac{\partial^2 V}{\partial z^2} \right) = 0$$

where x, y, z are the spacedimensions and α is a parameter. If you felt inclined you could define V as

$$V = y^2 z - \cos(0.1x)$$

for a non-exact solution. Computational fluid dynamics can be used to discretize the equations, apply boundary conditions and simulate the unsteady nature of the flow. An innovative method to simulate the heat equation could even be submitted to ICCFD9.

The scope of ICCFD9 is devoted to all innovative aspects of CFD, basic and applied. Subjects of interest include but are not limited to:



Figure 1: This is the logo of ICCFD.

- Innovative algorithm development for flow simulations: higher-order methods, iterative methods, parallel algorithms, mesh adaptation, grid generation, meshless methods, immersed boundary methods and level-set methods.
- Advances in modeling of flow physics in the area of: steady and unsteady flows, compressible and incompressible flows, flows in porous media, hypersonic and reacting flows, turbulence (transition, DNS/LES, etc.), multi-phase flows, boundary layer stability and vortex dynamics.
- Advanced multidisciplinary applications using the above mentioned technologies: aeroacoustics, flow control, biomedical fluid mechanics, large scale applications, verification and validation methods, and turbomachinery.
- History of CFD

3 Conclusion and Future Work

ICCFD9 will be held at Grand Cevahir Hotel, Sisli, Istanbul. Grand Cevahir is Turkey's first 5 stars Congress Hotel and by way of its impeccable principles has really made a difference in the sector. The hotel's congress hall is the biggest in Europe. The hotel is located at one of the business centers of Istanbul and is very close to downtown, Nisantasi, Taksim and the historical Sultan Ahmet Area. Hotel has free roundtrip shuttle service to nearby metro station, providing convenient urban transportation network. We recommend placing reservations before the conference and the reduced conference rates are available.

References

- [1] J. Doe. *Important book title: A complete work*. ACME. 2012.
- [2] J. J. Doe and B. Schmit. Novel approach to innovation and synergy. *Int. J. Sci. Tech.*, 54:695-706, 2012.