

Jinsung Kim

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EDUCATION

- Ph.D. in Mechanical Engineering (Aug. 2005)
Seoul National University, Seoul, Korea
Research area: Flow control, Instability of shear flow
Thesis: Distributed forcing of flow over a circular cylinder
- M.S. in Mechanical Engineering (Feb. 2001)
Seoul National University, Seoul, Korea
Thesis: Large eddy simulation of turbulent flow over a circular cylinder
- B.S. in Mechanical Engineering (Feb. 1998)
Seoul National University, Seoul, Korea

JOURNAL PUBLICATIONS

- Hwang, Y, **Kim, J.** & Choi, H., Stabilization of absolute instability in spanwise wavy two-dimensional wakes, *J. Fluid Mech.*, 727, 346-378, 2013
- Choi, H., Jeon, W.-P. & **Kim, J.**, Control of flow over a bluff body, *Annu. Rev. Fluid Mech.*, 40, 113-139, 2008
- Kim, J.** & Choi, H., Distributed forcing of flow over a circular cylinder, *Phys. Fluids*, 17, 33103, 2005
- Kim, J., Hahn, S., **Kim, J.**, Lee, D., Choi, J., Jeon, W.-P. & Choi, H., Active control of turbulent flow over a model vehicle for drag reduction, *J. Turbulence*, 5, 19, 2004

WORK EXPERIENCES

Led several research and development projects in LG electronics:

- Development of oil-free centrifugal chiller using gas bearings up to 300RT 2017~2019
- 150RT, 125RT oil-free compressor
- Geothermal heat pump using shell-and-tube heat exchangers 2016
- HX switchable between falling-film evaporator and condenser
- Air-cooled screw chiller using micro-channel condenser 2015
- Falling film evaporator and cyclone oil separator for screw chiller 2014
- Oil-free centrifugal compressor using gas bearings 2010~2013
- 100RT oil-free compressor and compressor test rig
- Dynamic air bearing load capacity test and lifetime evaluation
- Variable speed centrifugal chiller control logic
- Large capacity brine chiller using two centrifugal compressors in series 2009
- Model selection program for single stage centrifugal chillers 2007~2008
- Cycle simulation code and selection algorithm
- Thermal stability of refrigerants for organic Rankine cycle 2006
- R245fa thermal decomposition test