ISAKARI HIROSHI

PERSONAL INFORMATION

Born in Japan, 27 September 1984

email isakari@nuem.nagoya-u.ac.jp

phone +81 (52) 789 2781

WORK EXPERIENCE

May 2012–Present **Assistant Professor, NAGOYA UNIVERSITY**

Dept. of Mech. Sci. and Eng., Nagoya Univ.

Working on a topology optimisation method for wave devices with the boundary element method and the level set method.
Reference: MATSUMOTO Toshiro · +81 (52) 789 2780 · t.matsumoto@nuem.nagoya-u.ac.jp

April 2012 **Postdoc, KYOTO UNIVERSITY**

Dept. of Info., Kyoto Univ.

Worked on a fast multipole boundary element method for "Metamaterials".
Reference: NISHIMURA Naoshi +81 (75) 753 5871 · nchml@i.kyoto-u.ac.jp

2010-2012 **Research Fellow, JSPS (KYOTO UNIV.)**

Worked on preconditioning approaches to accelerate the fast multipole boundary element methods for elastic waves in periodic domain.
Reference: NISHIMURA Naoshi +81 (75) 753 5871 · nchml@i.kyoto-u.ac.jp

EDUCATION

2009-2012 **Kyoto University, Japan**

Ph.D. Thesis: *Periodic FMMs and Calderon's preconditioning in acoustics and elastodynamics*
Advisors: Profs. NISHIMURA Naoshi & TAMURA Takeshi

2007-2009 **Kyoto University, Japan**

M.eng Department of Civil and Earth Resources Engineering

2003-2007 **Kyoto University, Japan**

B.eng Undergraduate school of Global Engineering

RECENT PUBLICATIONS

[1] Isakari H., Kuriyama K., Harada S., Yamada T., Takahashi T. and Matsumoto T. "A topology optimisation for three-dimensional acoustics with the level set method and the fast multipole boundary element method", submitted to *Mechanical Engineering Journal*

[2] Gao H. F., Matsumoto T., Takahashi T., Isakari H. "Investigation of finite/infinite unidirectional elastic phononic plates by BEM", *Engineering Analysis with Boundary Elements*, Vol. 40, pp.93-103, 2014.

[3] Gao H. F., Takahashi T., Isakari H. and Matsumoto T. "A study on eigensolutions of

2D elastic problem by using BEM and FEM", *Transactions of JASCOME*, Vol. 13, pp.49-54, 2013.

[4] Abe F., Isakari H., Takahashi T. and Matsumoto T., "A topology optimisation in two-dimensional electromagnetics with the level set method and the boundary element method", *Transactions of JASCOME*, Vol.13, pp.37-42, 2013

[5] Kourogi Y., Isakari H., Takahashi T., Yamada T. and Matsumoto T., "On a topological sensitivity analysis of three-dimensional electromagnetic wave problems with the boundary element method and its application to a level set based structural optimisation", *Transactions of JASCOME*, Vol.13, pp.55-60, 2013.

[6] Gao H. F., Matsumoto T., Takahashi T. and Isakari H., " Analysis of band structure for 2D acoustic phononic structure by BEM and the block SS method", *Computer Modeling in Engineering and Sciences*, Vol.90, No.4, pp.283-301, 2013

[7] Gao H. F., Matsumoto T., Takahashi T. and Isakari H. "Eigenvalue analysis for acoustic problem in 3D by boundary element method with the block SakuraiSugiura method", *Engineering analysis with boundary elements*, Vol.37, pp.914-923, 2013

[8] Isakari H., Niino K., Yoshikawa H. and Nishimura, N. Calderon's preconditioning for periodic fast multipole method for elastodynamics in 3D. *International Journal for Numerical Methods in Engineering*, Vol. 90, pp. 484-505. 2012.

COMPUTER SKILLS

Basic Adobe Illustrator, Inkscape, HTML

Intermediate Shell script, OpenOffice

Advanced Linux, LaTeX, Fortran90

OTHER INFORMATION

Awards

2011 · Best presentation award at JASCOME conference

2011 · Best presentation award at JASCOME conference

Languages

Japanese · Mothertongue

English · Working knowledge (both written and spoken)

April 16, 2014