

## Atsushi Yao

Date of Birth: November 25, 1987  
Nationality: Japanese  
Current affiliation: Department of Electrical Engineering  
Kyoto University  
Katsura, Kyoto, 615-8510, Japan  
Tel: +81(75)383-2239  
E-mail: yao@dove.kuee.kyoto-u.ac.jp

### Education

April, 2012 – Present Ph.D. student, Kyoto University,  
Graduate School of Engineering, Department of Electrical Engineering  
Advisor: Professor Takashi Hikihara  
March, 2012 M.E., Kyoto University,  
Graduate School of Engineering, Department of Electrical Engineering  
Advisor: Professor Takashi Hikihara  
Thesis: Fundamental Studies on Memory Device  
of Nonlinear Electro Mechanical Resonator  
March, 2010 B.E., Osaka City University,  
Faculty of Engineering, Department of Electrical Engineering  
Advisor: Professor Tahito Aida  
Thesis: Micro Spatial Light Modulator Fabricated Using LOR Sacrificial Layer

### Current Research Topics (Keywords)

[1] MEMS resonator [2] Nonlinear dynamics and its control [3] Coupled system

### Institutes

- Institute of Electrical Engineers of Japan (IEEJ)
- Institute of System, Control and Information Engineers (ISCIE) (Japan)
- Institute of Electronics, Information and Communication Engineers (IEICE) (Japan)

### Award

1. NOLTA 2011 Student Paper Award

### Archival journal articles

1. [A. Yao](#) and T. Hikihara, Reading and writing operations of memory device in micro-electromechanical resonator, IEICE Electronics Express, 9 (14), 1230–1236 (2012).
2. [A. Yao](#) and T. Hikihara, Counter operation in nonlinear micro-electro-mechanical resonators, Physics Letters A, 377 (38), 2551–2555 (2013).

## Refereed conference proceedings

1. A. Yao and T. Hikiyara, Switching Control between Stable Periodic Vibrations in a Nonlinear MEMS Resonator, 2011 International Symposium on Nonlinear Theory and its Applications (NOLTA2011), pp. 709–712, Kobe, Japan, September 4–7, 2011.
2. A. Yao and T. Hikiyara, Read and Write Operations of Memory Device of Nonlinear MEMS Resonator, 2012 International Symposium on Nonlinear Theory and its Applications (NOLTA2012), pp. 352–355, Majorca, Spain, October 22–26, 2012.
3. A. Yao and T. Hikiyara, Logical Behavior in Memory Devices of Coupled Nonlinear MEMS Resonators, 2013 International Symposium on Nonlinear Theory and its Applications (NOLTA2013), pp. 30–33, Santa Fe, USA, September 8–11, 2013.

## Conference presentations (Non-refereed)

1. A. Yao and T. Hikiyara, A Numerical Study on Switching between Stable Periodic Motions in a Nanomechanical Resonator, 2010 MicRO Alliance, B-29, Kyoto, Japan, November 22, 2010.
2. A. Yao and T. Hikiyara, Switching and Measurement of Coexisting Stable Periodic Vibrations in MEMS Resonator: Towards Read and Write Operations as Memory Devices, 2011 Kyoto Workshop on NOLTA, NP10, Kyoto, Japan, November 30, 2011.