

PERSONAL INFORMATION

Alvise Bagolini



WORK EXPERIENCE

2022 - present

Researcher

Fondazione Bruno Kessler, Italy, Micro Sensors Technology

- Silicon Micro Electro-mechanical devices (MEMS) design and fabrication
- Micro-fabrication technology research and development
- Finite element and analytical device modeling

Business or sector **MEMS R&D**

2008-2022

Technologist

Fondazione Bruno Kessler, Italy, MicroNano Facility

- Silicon Micro Electro-mechanical devices (MEMS) design and fabrication
- Micro-fabrication technology research and development
- Finite element and analytical device modeling

Thin film mechanical properties characterization

Business or sector **MEMS R&D**

2001- 2008

Research Technologist

ITC-Irst, Italy

- research and development of MEMS technology platforms
- thin films residual stress characterization

Business or sector **MEMS R&D**

2000- 2001

Visiting Student

DIMES - TU Delft

- development of a low temperature module for MEMS surface micromachining

Business or sector **MEMS R&D**

EDUCATION AND TRAINING

2002-2003

Bachelor degree in Physics

Faculty of Science, Trento

1998-2000

Methodologies for Physics Laboratory degree

Faculty of Science, Trento

- Cryogeny technologies and methods
- Vacuum technologies and methods

PERSONAL SKILLS

Mother tongue(s)

Italian

Other language(s) English (fluent)

Job-related skills MEMS technology platforms design and fabrication:
RF-switch, gas sensor, pressure sensor, inertial sensor, micromanipulator, CMUT
 Microlithography technology and equipment
 Optical and mechanical profilometry
 SEM inspection

Digital skills COMSOL finite element modeling
 Tanner L-edit microdevice design

Other skills Work in team, coordination, editing, PhD tutoring

SCIENTIFIC AFFILIATION

2016-present INFN – National Institute for Nuclear Physics

ADDITIONAL INFORMATION

Publications More than 100 peer reviewed.
 Recent publications:

“RF-MEMS Monolithic K and Ka Band Multi-State Phase Shifters as Building Blocks for 5G and Internet of Things (IoT) Applications”, Jacopo Iannacci, Giuseppe Resta, Alvise Bagolini, Flavio Giacomozzi, Elena Bochkova, Evgeny Savin, Roman Kirtaev, Alexey Tsarkov, Massimo Donelli 2020/1, Sensors, Vol. 20 Issue 9

“Development of MEMS MOS gas sensors with CMOS compatible PECVD inter-metal passivation”, Alvise Bagolini, Andrea Gaiardo, Michele Crivellari, Evgeny Demenev, Ruben Bartali, Antonino Picciotto, Matteo Valt, Francesco Ficorella, Vincenzo Guidi, Pierluigi Bellutti, 2019/8/1, Sensors and Actuators B: Chemical, Vol. 292

“Silicon Deep Reactive Ion Etching with aluminum hard mask”, Alvise Bagolini, Pietro Scauso, Stefano Sanguinetti, Pierluigi Bellutti, 2019/5/31, Materials Research Express, Vol.6, Issue 8

“Innovative Silicon Microgrippers for Biomedical Applications: Design, Mechanical Simulation and Evaluation of Protein Fouling” Cristina Potrich, Lorenzo Lunelli, Alvise Bagolini, Pierluigi Bellutti, Cecilia Pederzoli, Matteo Verotti, Nicola Pio Belfiore, 2018/3/24 Actuators, Volume 7, N.2, Multidisciplinary Digital Publishing Institute

“Wafer-level micropackaging in thin film technology for RF MEMS applications” A Persano, P Siciliano, F Quaranta, A Taurino, A Lucibello, Romolo Marcelli, G Capoccia, E Proietti, A Bagolini, J Iannacci, 2018/1/1, Microsystem Technologies, 24, N.1, Springer Berlin Heidelberg