



Università degli Studi di Cagliari

DIPARTIMENTO DI FISICA

## MICHELE SABA

Associate Professor of  
Experimental Physics  
Università di Cagliari

bibliometrics:  
H index 30  
>100 peer-reviewed articles  
>4600 citations (Google Scholar)  
lead author in Nature, Science

## WORK AND EDUCATION

2010-present, Researcher and Associate Professor of experimental condensed matter physics, Università di Cagliari, Italy

Research: Hybrid perovskites for solar cells and light emitters

2006-2009, Contract Professor 'Rientro dei cervelli', Università di Cagliari, Italy

Research: Advanced materials for optoelectronics

2003-2006, Postdoctoral Associate at MIT (Massachusetts Institute of Technology), Cambridge (MA), USA

Research: Bose-Einstein condensates of atom gases and microfabricated devices for atom optics, group W. Ketterle (Nobel 2001)

2002, PhD at EPFL (Swiss Federal Institute of Technology Lausanne)

Research: Optics of semiconductor nanostructures and microcavities, group B. Deveaud (now vice-president of Ecole Polytechnique, Paris)

1998 Degree in Physics, full marks (110/110) cum laude, Università di Cagliari, Italy

1993 High school, Liceo Classico "G.M. Dettori", Cagliari (60/60)

## PUBLICATIONS

Selected publications on major journals:

- Saba M, Rule-breaking perovskites. *Nature* **553**, 163–164 (2018)
- Saba M et al, Excited State Properties of Hybrid Perovskites. *Acc. Chem. Res* **49**, 166–173 (2016)
- Saba M et al, Correlated electron-hole plasma in organometal perovskites. *Nature Communications* **5**, 6049 (2014)
- Saba M et al, *Light scattering to determine the relative phase of two Bose-Einstein Condensates*. *Science* **307**, 1945 (2005)
- Leanhardt AE, Pasquini TA, Saba M et al, *Cooling Bose-Einstein Condensates Below 500 Picokelvin*. *Science* **301**, 1513 (2003)
- Saba M et al, *High-temperature ultrafast polariton parametric amplification in semiconductor microcavities*. *Nature* **414**, 731 (2001)



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### TEACHING

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supervision:  
4 postdocs, 8 PhD students  
>60 undergraduate students

2015-present, Modern physics laboratory  
2012- present, Sustainable energy seminars for physicists  
2012-2014, Mechanics and thermodynamics physics laboratory  
2011-2014, Optical spectroscopy for physicists  
2007-2010, Quantum optics and electronics for physicists  
2006-2012, General physics for informatics  
2007-2009, Third generation solar cells, Master in Renewable energies

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### AWARDS AND GRANTS

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scientific habilitation in 2013  
for full professor in experimental  
condensed matter physics (02/B1)

Swiss Physical Society Award 2002 in Applied Physics, sponsored by Phonak A.G.  
2002 Swiss National Science Foundation prospective researcher fellowship  
2005 Grant "Rientro dei cervelli" from the Italian Ministry of Education, University and Research  
2008 INFM-CNR (Italian National Research Council) Seed project for young researchers  
2011 Grant 'Ricerca Fondamentale' - Regione Sardegna - Nanocrystals for H<sub>2</sub> production from solar energy  
2012 Progetti di Ricerca Fondamentale Regione Autonoma della Sardegna LR7/2007

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### CONFERENCES

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participation to  
>50 international conferences  
>10 invited presentations

Selected invited talks  
CLEO Europe, 2017, Munich, Germany  
ISOPHOS-MAPHEBIO, 2017, Arbatax, Italy  
International Workshop on Green Photonics at NAIST, 2012, Japan  
NCCR-QP General Assembly 2009, Morat, Switzerland  
III Scuola materiali molecolari per fotonica ed elettronica, Arbatax 2009  
Physics Department Colloquium, Tyndall National Institute, Cork, 2007  
Physics Department Colloquium, Stony Brook, New York 2005



**Università degli Studi di Cagliari**  
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Colloquio Dipartimento di Fisica - Cagliari, Italy 2005

LPHYS04 Seminar on Physics of Cold Trapped Atoms, Trieste, Italy 2004

Seminario LENS - Firenze 2004

MURI Meeting 2004, Stanford

NOEKS-7 (2003), Karlsruhe

PQE-XXXII (2002), Snowbird, Utah

SPS-2002 Annual meeting of the Swiss Physical Society, Lausanne

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## LANGUAGE SKILLS

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English (fluent), French (fluent), German (basic)