

PERSONAL INFORMATION Caterina Guiot

-omissis-

[Select you current working level]

Enterprise	University	EPR
<input type="checkbox"/> Management Level	<input checked="" type="checkbox"/> Full professor	<input type="checkbox"/> Research Director and 1st level Technologist / First Researcher and 2nd level Technologist
<input type="checkbox"/> Mid-Management Level	<input type="checkbox"/> Associate Professor	<input type="checkbox"/> Level III Researcher and Technologist
<input type="checkbox"/> Employee / worker level	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

WORK EXPERIENCE

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Prof of Applied Physics (FIS07) , Neuroscience 'R. Levi Montalcini' Dept,
University of Torino from 2016

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EDUCATION AND TRAINING

- Ph. D in Physiology (1990)
- Post-degree training at: Technical University, Bielefeld, BRD; Free University, Amsterdam, NL ;DAMPT, University of Cambridge, UK.
- Specializzazione in Nuclear Physics (1984)
- Laurea in Physics (1981)

Replace with EQF
(or other) level if
relevant

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PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s) English (C1), Russian (A1)

Job-related skills -Faculty member of the PhD Program in Complex Systems for Quantitative Biomedicine, University of Torino.
-Expertize in fluid dynamics in biology, medical applications of ultrasound and non-ionizing radiation; modeling of tumor growth, in particular universal laws, scale phenomena and study of the fractal dimensions of the microcirculation, modeling in neuroscience (sleep, neurodegeneration) and nanomedicine.

-Author of four patents (3 national and one with PCT extension), of which 3 pertaining to the use of micro and nanobubbles in the clinical field and one relating to the improvement of the use of ultrasonic vascular doppleflow techniques.

Other skills AI applications to biology and medicine

ADDITIONAL INFORMATION

Most significant publications

[Machine Learning Profiling of Alzheimer's Disease Patients Based on Current Cerebrospinal Fluid Markers and Iron Content in Biofluids](#)

[Ficiara, E](#); [Boschi, S](#); (...); [Guiot, C](#)

Feb 22 2021 | FRONTIERS IN AGING NEUROSCIENCE 13

[A mathematical model for the evaluation of iron transport across the blood-cerebrospinal fluid barrier in neurodegenerative diseases](#)

[Ficiara, E](#); [D'Agata, F](#); (...); [Guiot, C](#)

[42nd Annual International Conference of the IEEE-Engineering-in-Medicine-and-Biology-Society \(EMBC\)](#)

2020 | 42ND ANNUAL INTERNATIONAL CONFERENCES OF THE IEEE ENGINEERING IN MEDICINE AND BIOLOGY SOCIETY: ENABLING INNOVATIVE TECHNOLOGIES FOR GLOBAL HEALTHCARE EMBC'20 , pp.2270-2273

[An external validation of the Candiolo nomogram in a cohort of prostate cancer patients treated by external-beam radiotherapy](#)

[Gabriele, D](#); [Guameri, A](#); (...); [Ricardi, U](#)

May 5 2021 | RADIATION ONCOLOGY 16 (1)

[A Multiscale Hypermodel to Predict the Nephroblastoma Response to Preoperative Chemotherapy](#)

[Graf, N](#); [de Bono, B](#); (...); [Stamatakis, G](#)

Nov 2016 | PEDIATRIC BLOOD & CANCER 63 , pp.S245-S245

[A Simple PSA-Based Computational Approach Predicts the Timing of Cancer Relapse in Prostatectomized Patients](#)

[Stura, I](#); [Gabriele, D](#) and [Guiot, C](#)

Sep 1 2016 | CANCER RESEARCH 76 (17) , pp.4941-4947

[Is there still a role for computed tomography and bone scintigraphy in prostate cancer staging? An analysis from the EUREKA-1 database](#)

[Gabriele, D](#); [Collura, D](#); (...); [Gabriele, P](#)

Apr 2016 | WORLD JOURNAL OF UROLOGY 34 (4) , pp.517-523

[A two-clones tumor model: Spontaneous growth and response to treatment](#)

[Stura, I](#); [Venturino, E](#) and [Guiot, C](#)

Jan 2016 | MATHEMATICAL BIOSCIENCES 271 , pp.19-28

[Growth impairment after TBI of leukemia survivors children: a model- based investigation](#)

[Galletto, C](#); [Glozzi, A](#); (...); [Guiot, C](#)

Oct 13 2014 | THEORETICAL BIOLOGY AND MEDICAL MODELLING 11

[Computational Horizons In Cancer \(CHIC\): Developing Meta- and Hyper-Multiscale Models and Repositories for In Silico Oncology - a Brief Technical Outline of the Project](#)

[Stamatakis, G](#); [Dionysiou, D](#); (...); [Tsiknakis, M](#)

[2014 6th International Advanced Research Workshop on In Silico Oncology and Cancer Investigation \(IARWISOCI\)](#)

2014 | 2014 6TH INTERNATIONAL ADVANCED RESEARCH WORKSHOP ON IN SILICO ONCOLOGY AND CANCER INVESTIGATION (IARWISOCI)

[DOUBLE-LAYERED MODELS CAN EXPLAIN MACRO AND MICRO STRUCTURE OF HUMAN SLEEP](#)

[Stura, I](#); [Priano, L](#); (...); [Venturino, E](#)

Apr 2013 | INTERNATIONAL JOURNAL OF NEURAL SYSTEMS 23 (2)

[A novel approach to the analysis of human growth](#)

[Glozzi, AS](#); [Guiot, C](#); (...); [lordache, DA](#)

May 17 2012 | THEORETICAL BIOLOGY AND MEDICAL MODELLING 9

Caterina **Guiot**
(F.to)

20/02/2023