



Curriculum Vitae - Marco Cosentino Lagomarsino

PI Quantitative Biology of Cells and Genomes, IFOM
Associate Professor Physics Department, University of Milan

Current appointment: Associate Professor University of Milan
(*since 2018*) PI IFOM, the FIRC Institute of Molecular Oncology, Milan, Italy

Web: IFOM Google Scholar ResearcherID ORCID

Academic qualifications: 2020 Abilitazione Scientifica Nazionale Prof Ordinario 02/A2
2016 Abilitazione Scientifica Nazionale Prof Associato 02/A2
2012 Abilitazione Scientifica Nazionale Prof Associato 02/B2 e

02/B3

2011 HDR (Habilitation Defense) in Physics, Univ. Paris VI
2004 Ph.D. in Physics, University of Leiden
1999 Laurea Theoretical Physics, Univ. of Milan (110/110 cum

laude)

Past Scientific Career:

2015-2018. CNRS 2nd class Research Director (DR2)

2009-2018. PI of the group "Génophysique / Genomic Physics", Université Paris VI. UMR7238.

2009-2015. Tenured 1st class CNRS researcher (CR1).

2007-2009. Research associate, theoretical physics, statistical mechanics group (head S. Caracciolo), physics department, University of Milan (IT), and I.N.F.N., Milan.

2004-2007. Postdoc Curie Institute, theoretical biophysics group (supervisor: J.F. Joanny) and RNA dynamics and biomolecular systems group (Supervisor: H. Isambert),

2000-2004. Ph.D in Physics, AMOLF, Amsterdam (NL). Supervisor: Marileen Dogterom.

Publications:

113 Publications in international peer-reviewed ISI journals. H index 32 (Google Scholar).

3 Refereed proceedings, **4** book chapters, **2** Theses

Student Supervision:

2007- Supervision of 8 PhD students and 8 postdocs

2002- Supervision of 34 master students and 40 undergraduate thesis students

Conferences / talks:

13 Invited Conference talks (2 keynotes) / 10 Contributed Conference Talks / >50 Invited Seminars

12 Organized International Conferences / 4 Local Multi-year Events.

Current Support: AIRC Investigator Grant 2020-2025

Past Support: HFSP Young Investigator 2014-2018, CEFIPRA 2014-2018, HFSP Young Investigator 2009-2013, Royal Society, INFN, UPMC Convergence,, UPMC-Institut de Calcul

Awards: Prime d'excellence CNRS 2011-2014, HFSP Young Investigator Grant 2009 and 2014

Referee Activity: PNAS, Nature Communications, Nature Microbiology, Cell Systems, PLoS Computational Biology, PloS One, Molecular BioSystems, Nucleic Acids Research, Physical Review Letters, Physical Review E, BMC Systems Biology, BMC Microbiology, Biophysical Journal, Soft Matter, Physica D. Human Frontier Science Program Organization, the National Centre for Biological

Sciences (NCBS, India), Région Languedoc-Roussillon, University of Montpellier 2, CEFIPRA

Panels and Boards: 23 International PhD Panels, 1 Group Leader Selection Panel,
Board Member of the PhD School for Complex Biological Systems, University of Turin.
Board Member of the PhD School in Physics, Astrophysics and Applied Physics, University of Milan.

Visits:

2016-2017 Visiting Scientist, Physics Department, University of Padova, Italy.

2017 Visiting Scientist, IFOM, the FIRC Institute of Molecular Oncology, Milan, Italy.

Selection of Publications:

M Panlilio, J Grilli, G Tallarico, I Iuliani, B Sclavi, P Cicuta, M Cosentino Lagomarsino [Threshold accumulation of a constitutive protein explains E. coli cell-division behavior in nutrient upshifts](#) Proceedings of the National Academy of Sciences 118 (18) 2 2021

M. Yousuf, I. Iuliani, R. T. Veetil, A. Seshasayee, B. Sclavi, M. Cosentino Lagomarsino **Early fate of Exogenous promoters in E. coli.** Nucleic acids research 48 (5), 2348-2356, 2020

M. Russo, G. Crisafulli, A. Sogari, N. M. Reilly, S. Arena, S. Lamba, A. Bartolini, V. Amodio, A. Magri, L. Novara, I. Sarotto, Z. D. Nagel, C. G. Pietti, A. Amatu, A. Sartore-Bianchi, S. Siena, A. Bertotti, L. Trusolino, M. Corigliano, M. Gherardi, M. Cosentino Lagomarsino, F. Di Nicolantonio, A. Bardelli. **Adaptive mutability of colorectal cancers in response to targeted therapies.** Science 366 6472, 1473-1480 2019 (Commentary by M. Gerlinger on the same issue).

C. Cadart and L. Venkova, P. Recho, M. Cosentino Lagomarsino, M. Piel. **The physics of cell-size regulation across timescales.** Nature Physics 15, 993-1004, 2019

Gabriele Micali, Jacopo Grilli, Matteo Osella, Marco Cosentino Lagomarsino **Concurrent processes set E. coli cell division** Science Advances Vol. 4, no. 11, eaau3324, 2018

Clotilde Cadart, Sylvain Monnier, Jacopo Grilli, Rafaele Attia, Emmanuel Terriac, Buzz Baum, Marco Cosentino Lagomarsino, Matthieu Piel **Size control in mammalian cells involves modulation of both growth rate and cell cycle duration** Nature communications 9 (1), 3275, 2018

E de Lazzari, J Grilli, S Maslov, [M Cosentino Lagomarsino](#) **Family-specific scaling laws in bacterial genomes** Nucleic Acids Research gkx510, 2017

Matteo Osella, Sander J. Tans, [Marco Cosentino Lagomarsino](#) **Step by Step, Cell by Cell: Quantification of the Bacterial Cell Cycle**, Trends in Microbiology, 25 4 250-256 2017.

Javer A, Kuwada NJ, Long Z, Benza VG, Dorfman KD, Wiggins PA, Cicuta P, [Cosentino Lagomarsino M](#) **Persistent super-diffusive motion of Escherichia coli chromosomal loci** Nature Communications 5 3854, 2014.

J Grilli, M Romano, F Bassetti, M Cosentino Lagomarsino, **Cross-species gene-family fluctuations reveal the dynamics of horizontal transfers.** Nucleic Acids Research, 42 (11) 6850-6860 2014.

Gherardi M, Mandrà S, Bassetti B, [Cosentino Lagomarsino M.](#) **Evidence for soft bounds in Ubuntu package sizes and mammalian body masses** PNAS 110(52):21054-8, 2013.

Osella M, Nugent E, [Cosentino Lagomarsino M.](#) **Concerted control of E. coli cell division** PNAS, 111 (9), 3431-3435, 2014

Javer, A. Long, Z. Nugent, E. Grisi, M. Siriwatwetchakul, K., Dorfman, K.D. Cicuta, P. and [Cosentino Lagomarsino, M.](#) **Short-time Movement of E. coli Chromosomal Loci Depends on Coordinate and Subcellular Localization** Nature Communications 4, 3003, 2013.

Grilli, J. Bassetti, B. Maslov, S. [Cosentino Lagomarsino, M.](#) **Joint scaling laws in functional and evolutionary categories in prokaryotic genomes** Nucleic Acids Res. 40(2):530-40, 2012.

Kotar, J. Leoni, M. Bassetti, B. Cosentino Lagomarsino, M. and Cicuta, P. **Hydrodynamic synchronization of colloidal oscillators.** Proc Natl Acad Sci U S A 107, 7669-7673, 2010.