

CURRICULUM by Francesco Tampieri

Personal Details

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Born in Bologna (Italy) on October 5th, 1949.

Current position

Associated researcher, CNR Institute of Atmospheric Sciences and Climate, Bologna, Italy

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ISAC CNR, via Gobetti 101, 40129 Bologna

Research interests

Geophysical fluid dynamics and atmospheric physics, with special focus to theoretical, modeling and experimental studies on the atmospheric boundary layer and on transport and dispersion.

Education

Laurea degree in Physics, Bologna University, 1972

Research and teaching experience

1973-1976 Fellowship at CNR-IFA, Bologna section.

1976-2014 Research scientist CNR, presently at Institute of Atmospheric Sciences and Climate (ISAC), Bologna (Director of Research since 1991).

today Associated researcher, CNR ISAC, Bologna

2002-2015 Professor in Bologna University, course "Planetary boundary layer and diffusive processes"

Coordination activity

1995-1999 Director of the Institute for the study of Environmental Geophysical Methodologies (CNR IMGA)

1999-2001 Director of the Institute of Sciences of Atmosphere and Ocean (CNR-ISAO).

He headed the research group in his Institute on boundary layer and turbulence, supported by many national and international projects and organized and (co)directed workshops and schools in the sector of environmental sciences.

Recent publications (since 2010)

Book

Tampieri, F. 2017. Turbulence and Dispersion in the Planetary Boundary Layer. Springer, 241 pp.

Papers

Schiavon M., Tampieri F., Caggio M., Bodnar T. (2020) "The effect of submeso motions on Second-Order Moment Budgets in the Stable Atmospheric Boundary Layer" In Proceedings Topical Problems of Fluid Mechanics 2020, Prague, 2020. Edited by David Mimurda and Tomas Bodnar, pp. 192-199.

Schiavon, M, Tampieri, F., Bosveld, FC, Mazzola, M., Castelli, S Trini, Viola, A. and Yagüe, C., 2019. The Share of the Mean Turbulent Kinetic Energy in the Near-Neutral Surface Layer for High and Low Wind Speeds. *Boundary-Layer Meteorology*, 172, 81-106.

Tampieri, F., Viola, A. P., Mazzola, M., Pelliccioni, A. 2016. On turbulence characteristics at Ny-Alesund-Svalbard. *Rend. Fis. Acc. Lincei*, 1-6. DOI 10.1007/s12210-016-0526-6

Buccolieri, R. , Cesari, R. , Dinoi, A., Maurizi, A. , Tampieri, F., Di Sabatino, S. 2016. Impact of ship emissions on local air quality in a Mediterranean city's harbour after the European sulphur directive. *International Journal of Environment and Pollution*, 59, 30-42.

M. Mazzola, F. Tampieri, A. P. Viola, C. Lanconelli, T. Choi. 2016. Stable boundary layer vertical scales in the Arctic: observations and analyses at Ny-Alesund, Svalbard. *QJRMS*, DOI: 10.1002/qj.2727

F. Tampieri, C. Yague, S. Viana. 2015. The vertical structure of second-order turbulence moments in the stable boundary layer from SABLES98 observations. *Boundary-Layer Meteorology*, doi:10.1007/s10546-015-0046-4

Paci, A.M. , Bartolucci, C. , Lalle, C. , Tampieri, F. 2015. Knowledge capture and information sharing for science and technology. *Communications in Computer and Information Science*, 553, 541-555.

Cesari, R. , D'Isidoro, M. , Maurizi, A. , Mircea, M. , Monti, F. , Pizzigalli, C., Tampieri, F. 2014. Modelling dispersion of smoke from wildfires in a Mediterranean area. *International Journal of Environment and Pollution*, 55, 219-229.

A. Maurizi, F. Tampieri, F. Russo. 2013. Local vs. external contribution to the budget of pollutants in the Po Valley (Italy) hot spot. *Science of the Total Environment*, 458-460, 459-465.

L. Caporaso, A. Riccio, F. Di Giuseppe, F. Tampieri. 2013. Relating Mean Radiosounding Profiles to Surface Fluxes for the Very Stable Boundary Layer. *Boundary-Layer Meteorology*, 147, 203-215. DOI 10.1007/s10546-012-9788-4.

A. Colette, C. Granier, O. Hodnebrog, H. Jakobs, A. Maurizi, A. Nyiri, S. Rao, M. Amann, B. Bessagnet, A. D'Angiola, M. Gauss, C. Heyes, Z. Klimont, F. Meleux, M. Memmesheimer, A. Mieville, L. Rouil, F. Russo, S. Schucht, D. Simpson, F. Stordal, F. Tampieri, M. Vrac. 2012. Future air quality in Europe: a multi-model assessment of projected exposure to ozone. *Atmos. Chem. Phys.*, 12, 10613-

10630. www.atmos-chem-phys.net/12/10613/2012/ doi:10.5194/acp-12-10613-2012

Maurizi A., Russo F., D'Isidoro M., Tampieri F. .2012. Nudging technique for scale bridging in air quality/climate atmospheric composition modelling. *Atmos. Chem. Phys.*, **12**, 3677-3685. (Special Issue: Megacities: air quality and climate impacts from local to global scales)
<http://www.atmos-chem-phys.net/12/3677/2012/>

Colette A., Granier C., Hodnebrog Ø., Jakobs H., Maurizi A., Nyiri A., Bessagnet B., D'Angiola A., D'Isidoro M., Gauss M., Meleux F., Memmesheimer M., Mieville A., Rouil L., Russo F., Solberg S., Stordal F., Tampieri F. 2011. Air quality trends in Europe over the past decade: a first multi-model assessment. *Atmos. Chem. Phys.*, **11**, 11657-11678. doi:10.5194/acp-11-11657-2011

G. Pagnini, S. Strada, A. Maurizi, F. Tampieri. 2010. Lagrangian stochastic modelling for oil spills turbulent dispersion on ocean surface. *Communications in Applied and Industrial Mathematics*, **1**, 185-204.

M. D'Isidoro, A. Maurizi, F. Tampieri. 2010. Effects of resolution on the relative importance of numerical and physical diffusion in atmospheric composition modelling. *Atmospheric Chemistry and Physics*, **10**, 2737-2743. acp-2009-581.