

CURRICULUM VITAE ET STUDIORUM

Luca Belelli Marchesini

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EDUCATION

- April 2007 **PhD in Forest Ecology**. Thesis: Analysis of the carbon cycle of steppe and old field ecosystems of Central Asia. Supervisor: Prof. R.Valentini, University of Tuscia – Viterbo (Italy).
- April 2002 **M.Sc. in Forest Sciences**, mark: 110/110 cum laude; Thesis: “Carbon and energy fluxes over a pioneer forest stand of Central Siberian taiga” (in Italian). Supervisor: Prof. R. Valentini, University of Tuscia – Viterbo (Italy).
- July 1994 **Scientific high school diploma**, graduation mark: 55/60. Liceo Manfredi Azzarita, Roma (Italy)

POST-GRADUATE/TECHNICAL COURSES:

- June 2019 Course “QGIS and geographic data”. Fondazione Edmund Mach, San Michele all’Adige (Italy).
- July 2011 Summer Course “**Statistical Copula Function: theory and practice**” University of Tuscia, Viterbo (Italy). Organized by STAHY (International Association of Hydrological Sciences) and University of Tuscia.
- June 2007 Summer School on “**Ecohydrology**”, Vrije Universiteit – Amsterdam (The Netherlands)
- July 2006 CarboEurope Summer School on “**Eddy Covariance measurements**”, Namur (Belgium). Organizers: INRA(France), University of Gembloux (Belgium).
- May 2005 Intensive course for PhD students in **forest-environmental topics (dendroecology)**. University of Tuscia (Italy)
- March 2005 Intensive course for PhD students in **forest-environmental topics (remote sensing techniques, sampling methodologies, primary productivity and carbon stocks in forest ecosystems, global changes)** University of Tuscia (Italy), CSALP Pieve Tesino (TN) (Italy).

- February 2005 Course on the “**Use of Campbell Scientific CR10X datalogger**”. Tecno El Srl Tecnologie Elettroniche (Rome, Italy)
- Nov-Dec. 2004 **Analysis of agrometeorological data and introduction to computer programming**, Rome (Italy). Organized by: UCEA (Central Office of Agricultural Ecology) and AIAM (Italian Agro-meteorological Association).
- Nov-Dec. 2004 **Statistics applied to general and landscape ecology**, Rome (Italy). Organized by: APAT (Agency for Environmental Protection and Technical Services of Italy).
- Jan-Mar. 2003 **Introduction to atmospheric turbulence**, San Sebastiano Vesuviano (Italy). Organized by: CNR-ISAFoM (National Research Council – Institute for Agricultural and Forest Systems in the Mediterranean).

EMPLOYMENT:

- Mar 2019 – to date **Researcher**, Department of Sustainable Agroecosystems and Bioresources, Fondazione Edmund Mach, San Michele all’Adige (Italy).
- Oct 2018 – Feb 2019 **Researcher, Associate Professor**, Agrarian Technological Institute of the Russian University for the People’s Friendship (RUDN), Moscow (Russia). Development of Internet of Things (IoT) based devices for the detection of trees biological features and processes including growth, water transport, canopy spectral reflectance, wood physical parameters.
- Feb 2018 – Jul 2018 **Researcher (Head of Research)**, School of Natural Sciences, Far Eastern Federal University, Vladivostok (Russia). Development of laser spectroscopy based observations of CO₂, CH₄, NH₃, N₂O atmospheric concentrations and fluxes in terrestrial and marine environments of Far Eastern Russia.
- Nov 2017 – Jan 2018 **Scientific collaborator**, Euro-Mediterranean Centre on Climate Change (Italy). Testing and application of Internet of Things (IoT) technology for the monitoring of trees biology (Tree-Talker devices).
- Sep. 2016 – Aug 2017 **Researcher (Head of Research)**, School of Natural Sciences, Far Eastern Federal University, Vladivostok (Russia). Development of the Far Eastern Climate Smart Lab research line on environmental monitoring (greenhouse gas flux observations) in Asian Pacific Russia.
- Dec. 2011 –Nov 2015 **Research associate (PostDoc)** "GHG flux measurements in the framework of the PAGE21 project (Changing permafrost in the Arctic and Its Global Effects in the 21st Century)", Faculty of Earth and Life Sciences, VU University, Amsterdam, (The Netherlands).
- Dec. 2009 - Dec. 2011 **Research associate (PostDoc)** “Impact of climate variability and extreme climatic events on the carbon budget at ecosystem scale” within the EU CARBO-Extreme project. Laboratory of Forest Ecology, DiSAFRi, University of Tuscia, Viterbo, (Italy).
- Oct. 2007 - Nov. 2009 **Research associate (PostDoc)**, “Processing of eddy covariance data from the station network of the CARBOITALY project” Laboratory of Forest Ecology, DiSAFRi, University of Tuscia, Viterbo, (Italy).
- Sep. 2008 - Dec. 2008 **Consultant** (carbon sequestration expert). Afforestation/Reforestation Project under the Clean Development Mechanism (CDM) in Berane (Republic of Montenegro). Agrotec S.p.A., Rome (Italy).

- May 2007 - Jun. 2007 **Consultant** (carbon sequestration expert), **Project Manager**. BioCarbon Fund – Reforestation Project: Analysis of Kyoto compliant carbon sequestration potential and evaluation of the Green Investment Scheme in the forestry sector of Ukraine. Agrotec S.p.A., Rome (Italy).
- Nov. 2005 - May 2006 **Consultant** (JI mechanism and carbon sequestration expert). BioCarbon Fund – Reforestation Project in Ukraine. Agrotec S.p.A., Rome (Italy).
- Aug. 2002 - Jan. 2007 **Research assistant** “Analysis of the functionality of steppe ecosystems in respect with global changes and carbon cycle” in the framework of the EU Project TCOS-Siberia. Laboratory of Forest Ecology, DiSAFRi, University of Tuscia, Viterbo, (Italy).

RESEARCH PROJECTS:

- I-TTN – Italian Tree-Talker Network (national project MIUR-PRIN). Role: participant/ Research scientist
- XF-ACTORS - Xylella Fastidiosa Active Containment Through a multidisciplinary-Oriented Research Strategy (<http://www.xfactorsproject.eu/>). Role: participant/ scientific collaborator
- PAGE21 - Changing Permafrost in the Arctic and its Global Effects in the 21st Century - EU FP7 (ENV.2011.1.1.3-1) (www.page21.eu). Role: participant/ Postdoctoral fellow
- InGOS - Integrated non CO₂ Greenhouse gas Observing System - EU FP7 Infrastructure project (<https://www.ingos-infrastructure.eu/>). Role: participant/ Postdoctoral fellow
- CarboExtreme - EU FP7 Research and Technological Development (Subactivity 6.1.1: Pressures on Environment and Climate) (<http://www.carbo-extreme.eu>). Role: participant/ Research associate
- Azioni Integrate Italia Spagna - MiUR & Ministerio de Educación y Ciencia de España.
Role: participant/ Research associate
- CarboItaly - Fondo Integrativo Speciale per la Ricerca (FISR), Programma strategico Sviluppo Sostenibile e Cambiamenti Climatici. Role: participant/ Research associate
- CarboEurope IP - Assessment of the European Carbon Balance - EU FP6 (<http://www.carboeurope.org>)
Role: participant/ PhD student
- TCOS-Siberia - Terrestrial Carbon Observation System Siberia - EU FP5 (EVK2-CT-2001-00131) (https://www.bgc-jena.mpg.de/public/carboeur/web_TCOS). Role: participant/ PhD student

TEACHING:

ACADEMIC COURSES:

Instructor at the **practice of the Statistics and Data Analysis course** (Statistiek en data analyse), at the Faculty of Life and Earth Sciences, VU University, Amsterdam. Academic years: 2012/2013, 2013/2014, 2014/2015.

Instructor at the **practice of the Applied Geophysics and Computer Modelling course** (Toegepaste geofysica en computermodell) at the Faculty of Life and Earth Sciences, VU University, Amsterdam. Academic year: 2013/2014.

Lecturer at the course of **Forest Ecology** (16 h) (Laurea degree in Forest and Environmental Sciences) at the University of Tuscia, (Italy). Academic years: 2007/2008, 2009/2010,

2010/2011. Topics: Biogeography of terrestrial biomes; population ecology, community and spatial ecology applied to forest ecosystems.

Assistant at the **Practice of the Forest Ecology course** (70 h) in the framework of the Laurea degree course in Forest and Environmental Sciences (Scienze Forestali ed Ambientali) at University of Tuscia (Italy). Academic years: 2002-03; 2003-04; 2004-05; 2005-06; 2006-07; 2007-08; 2009-2010.

Lecturer at the course of **Natural Parks and Protected Areas** (20 h) (Laurea degree in Design and Management of Forest and Environmental Systems) at the University of Sassari (Italy), branch of Nuoro. Academic year: 2007/2008. Topics: legal framework and management of European and Italian protected areas, biodiversity (theory and assessment methods), principles of sustainable forestry, wildlife management and conservation.

POSTGRADUATE COURSES AND SUMMER SCHOOLS

Instructor at the 2nd COST Action CA15226 - CLIMO Training School “Multiscale monitoring tools for a smart management of mountain forests”, Fondazione Edmund Mach, San Michele all’Adige, Trento, Italy, 1-3 July, 2019. Topic: Experimental set up, data collection and analysis of Tree-Taker devices.

Tutor and Lecturer at the **Undergraduate Leaders Program (ULP) of the Association of Pacific Rim Universities (APRU)** themed “Global Challenges for New Generation in Asia-Pacific Region”, 1-12 July 2017, FEFU, Vladivostok (Russia). Lecture title: Quantifying Greenhouse Gas Budgets: Necessity and Methodological Approaches.

Lecturer at the **Master (II level) - New professions: the environment as opportunity** (Nuove professioni: l’ambiente come opportunità), organized by University of Tuscia and the Ministry of Environment, Viterbo, Italy, June-July 2010. Lectures topic: IPCC guidelines for the LULUCF sector, methodological approaches for the assessment of carbon pools and their changes.

Instructor at the **specialization course “Carbon Manager”** organized by CulturaDimpresa Srl., March 2010, Rome (Italy). Topic: “IPCC guidelines for the Land Use-Land Use Change and Forestry sector”.

Lecturer at the **Master (II level) - Global Environmental Protection and International Policies** (Protezione dell’ambiente globale e politiche internazionali), organized by the Ministry of Environment and the University of Tuscia, November 2008, Rome, Italy. Lecture topics: “The Climate System”, “Influence of climate change and human management on arctic and boreal ecosystems”

Lecturer at the **Summer School - Analysis and problem solving of environmental conflicts related to the waste management and the production of energy. Technical, juridical, social and sanitary aspects**, organized by the Willy Brandt Foundation, 22-26 September 2008, La Quercia (VT), Italy. Lecture title: “Analysis of social and economic conflicts in the territories of natural parks”.

Lecturer and Students Tutor at the **Summer school in Ecology** organized by the Italian-Russian Institute for Research and Culture in Ecology (Istituto Italo-Russo di Ricerca e Formazione in Ecologia), Ulianovsk (Russia), 6-8 September 2004. Lecture title: “Carbon balance of natural and disturbed steppes of southern Siberia”.

Lecturer at the **Summer school in Ecology** organized by the Italian-Russian Institute for Research and Culture in Ecology (Istituto Italo-Russo di Ricerca e Formazione in Ecologia), Pieve Tesino (TN), Italy, 22 September 2003. Lecture title: “Assessment of net ecosystem production of forest ecosystems”

SUPERVISED THESES:

- 2018- (n.1) Master thesis in Ecology and Land Management; FEFU, Vladivostok, Russia
- (n.2) Bachelor theses in Ecology and Land Management; FEFU, Vladivostok, Russia
- (n.1) Bachelor theses in Soil Sciences; FEFU, Vladivostok, Russia
- 2017- (n.1) Bachelor theses in Soil Sciences; FEFU, Vladivostok, Russia
- 2009 - (n.1) Master thesis in Forest and Environmental Sciences, Univeristy of Tuscia, Viterbo, Italy- (co-supervisor)

PROFESSIONAL SERVICES

Member of the Scientific Committee and Editor of the book of abstracts of the international conference “Climate Change Constraints and Opportunities in the Asia-Pacific Region: Human-Biosphere-Atmosphere Interactions and Green Growth”, 24–26 October 2017, Vladivostok (Russia).

Member of the Organizing Committee of the “Circum-Polar Arctic Flux Workshop”, 6-9 February 2017, Hyytiälä (Finland).

Reviewer for the following peer reviewed journals: Biogeosciences, Hydrology and Earth System Sciences, Global Change Biology, Science of the Total Environment, Journal of Arid Environments, Sustainability, Water.

MEMBERSHIPS IN SCIENTIFIC SOCIETIES:

EGU (European Geophysical Union)

AWARDS AND HONORS:

Qualified for a position of researcher (III level) in Global Changes at CNR (National Research Council) on 4th October 2019 after public exam (contest n. 368.26).

International Arctic Science Committee (IASC) grant for participation to the Arctic Science Summit Week – Fairbanks, 12-18 March 2016.

Awarded a short visit grant by the European Science Foundation (TTORCH programme)– September 2014 (Participation to the First ICOS Science Conference and ECS seminar)

Received the **National Scientific Habilitation for Associate Professor** in the scientific-disciplinary sector 7/B2 (Scienze e Tecnologie dei Sistemi Arborei e Forestali/Science and Technologies of Tree and Forest Systems) on 13th October 2014 from the Ministry of Education, University and Research (MIUR).

Qualified for a position of researcher (III level) in environmental sciences (EV.2) at CNR (National Research Council) on 13th January 2012 after public exam (contest n. 364.96).

Member of the Examination Committee of the course of Forest Ecology at the University of Tuscia, Viterbo (ITA) after appointment of the Faculty Board of Agricultural and Forest Sciences on 12th November 2008.

Awarded the 1st Prize for PhD Thesis in the field of Agrometeorology by **AIAM (Italian Association of Agrometeorology)**, 11th June 2008, San Michele all’Adige (TN), Italy.

RESEARCH VISITS:

LSCE-UVSQ, Gyf sur Yvette (France) – January 2004. Ref: Prof. Dr. Philippe Ciais.

Sukachev Forest Institute – Russian Academy of Sciences, Krasnoyarsk (Russia) – (several visits in 1999, 2000, 2003-2005). Ref: Dr. Nadezda Tchebakova

CSIC, Almeria (Spain), June 2010, June 2011. Ref: Dr. Ana Rey Simo

CSIC Madrid (Spain), March 2013. Ref: Dr. Ana Rey Simo

IBPC – Russian Academy of Sciences, Yakutsk (Russia) – (several visits in 2012-2015). Ref: Dr. Trofim Maximov

VU-Amsterdam (The Netherlands)- **Guest scientist** at the Department of Earth Sciences (December 2015 to date). Ref.: Prof. Han Dolman.

LANGUAGES:

Italian (native language), English (proficient), Russian (conversational), Spanish (conversational), Dutch (beginner).

IT SKILLS:

OS: solid knowledge of MS Windows platforms (98, 2000, XP, 7, Vista, 8.1, 10), MS/Open Office and Adobe Creative Suite packages, Internet browsers. (ECDL test in March 2001).

Statistical packages: Systat, SigmaPlot, GraphPad Prism, Statistica .

Geographic Information Systems: QGIS

Programming languages: MATLAB, CRBasic (for Campbell Scientific data-loggers), R (basic knowledge), programming of Arduino microcontrollers.

DRIVING LICENCE:

European driving licence cat. A, B.

I agree to the handling of my personal data in accordance with the EU Regulation GDPR 2016/679.

Trento , 10th March 2020.

Luca Beelli Marchesini



LIST OF PUBLICATIONS

of

Luca Belelli Marchesini

H index: (ResearcherID:14; GoogleScholar:19)
 Citations: (ResearcherID: 704; GoogleScholar: 1255)
 Number of papers (ISI Indexed): 28
 Websites accessed on 10/03/2020.

SCIENTIFIC PUBLICATIONS

L.Belelli Marchesini, C. Wille, F.J. Parmentier, M. Goeckede, J. Van Huissteden, A.J. Dolman, M. Aurela, J. Boike, T. Christensen, T. Friborg, T. Laurila, M. Lund, M. Jammet, L. Kutzbach, T. Maximov, T. Sachs, Narasinha Shurpali. The carbon budget of Eurasian Arctic sites: a synthesis from the PAGE21 flux network. (in prep.)

PEER REVIEWED PAPERS ON ISI INDEXED JOURNALS

1. Masahito Ueyama, Kazuhito Ichii, Hideki Kobayashi, Tomo'omi Kumagai, Jason Beringer, Lutz Merbold, Eugenie S Euskirchen, Takashi Hirano, **Luca Belelli Marchesini**, Dennis Baldocchi, Taku M. Saitoh, Yasuko Mizoguchi, Keisuke Ono, Joon Kim, Andrej Varlagin, Minseok Kang, Takanori Shimizu, Yoshiko Kosugi, Marion Syndonia (Donie) Bret-Harte, Takashi Machimura, Yojiro Matsuura, Takeshi Ohta, Kentaro Takagi, Satoru Takanashi and Yukio Yasuda (2020). Inferring CO₂ fertilization effect based on global monitoring land-atmosphere exchange with a theoretical model. *Environmental Research Letters* (accepted)
2. Valentini, R.; **Belelli Marchesini, L.**; Gianelle, D.; Sala, G.; Yaroslavtsev, A.; Vasenev, V.; Castaldi, S. (2019). New tree monitoring systems: from Industry 4.0 to Nature 4.0. *Annals of Silvicultural Research*, 43 (2): 84-88. doi: 10.12899/asr-1847 handle: <http://hdl.handle.net/10449/58628>
3. Peaucelle, M.; Bacour, C.; Ciais, P.; Vuichard, N.; Kuppel, S.; Peñuelas, J.; **Belelli Marchesini, L.**; Blanken, P.D.; Buchmann, N.; Chen, J.; Delpierre, N.; Desai, A.R.; Dufrene, E.; Gianelle, D.; Gimeno-Colera, C.; Gruening, C.; Helfter, C.; Hörtnagl, L.; Ibrom, A.; Joffre, R.; Kato, T.; Kolb, T.E.; Law, B.; Lindroth, A.; Mammarella, I.; Merbold, L.; Minerbi, S.; Montagnani, L.; Šigut, L.; Sutton, M.; Varlagin, A.; Vesala, T.; Wohlfahrt, G.; Wolf, S.; Yakir, D.; Viovy, N. (2019). Covariations between plant functional traits emerge from constraining parameterization of a terrestrial biosphere model. *Global Ecology And Biogeography*, 28 (9): 1351-1365. doi: 10.1111/geb.12937 handle: <http://hdl.handle.net/10449/56886>
4. S. Chadburn, G. Krinner, P. Porada, A. Bartsch, C. Beer, **L. Belelli Marchesini**, J. Boike, C. Brutel-Vuilmet, A. Ekici, B. Elberling, G. Hugelius, M. Johansson, P. Kuhry, L. Kutzbach, M. Langer, F. Parmentier, J. Van Huissteden, T. Wang, S. Westermann, and E. Burke (2017). Carbon stocks and fluxes in the high latitudes: Using site-level data to evaluate Earth system models. *Biogeosciences* Vol. 14, Iss. 22: 5143-5169, doi: 10.5194/bg-14-5143-2017.
5. K. Ichii, M. Ueyama, M. Kondo, N. Saigusa, J. Kim, M.C. Alberto, J. Ardö, E. Euskirchen, M. Kang, T. Hirano, J. Joiner, H. Kobayashi, **L. Belelli Marchesini**, L. Merbold, A. Miyata, T. Saitoh, K. Takagi, A. Varlagin, M.S. Bret-Harte, K. Kitamura, Y. Kosugi, A. Kotani, K. Kumar, S-G. Li, T. Machimura, Y. Matsuura, Y. Mizoguchi, T. Ohta, S. Mukherjee, Y. Yanagi, Y. Yasuda, Y. Zhang and F. Zhao (2017). New data-driven estimation of terrestrial CO₂ fluxes in Asia using a standardized database of eddy covariance measurements, remote sensing data, and support vector regression. *Journal of Geophysical Research – Biogeosciences*, 122, doi:10.1002/2016JG003640.
6. O. Peltola, A. Hensen, **L. Belelli Marchesini**, C. Helfter, F.C. Bosveld, W. C. M. van den Bulk, S. Haapanala, J. van Huissteden, T. Laurila, A. Lindroth, E. Nemitz, T. Röckmann, A.T. Vermeulen and I. Mammarella (2015). Studying the spatial variability of methane flux with five eddy covariance towers of varying height. *Agricultural and Forest Meteorology* 214, 456-472, doi:10.1016/j.agrformet.2015.09.007.
7. N. M. Tchebakova, N. N. Vygodskaya, A. Arneth, **L. Belelli Marchesini**, O. Kolle, Yu. A. Kurbatova, E. I. Parfenova, R. Valentini, E. A. Vaganov, and E.D. Schulze (2015). Energy and Mass Exchange and the

- Productivity of the Main Ecosystems of Siberia (From Eddy Covariance Measurements). 2. Carbon fluxes and productivity. *Biology Bulletin*. 42(6), 579-588, doi: 10.1134/S1062359015660024.
8. N. M. Tchebakova, N. N. Vygodskaya, A. Arneth, **L. Belelli Marchesini**, O. Kolle, Yu. A. Kurbatova, E. I. Parfenova, R. Valentini, E. A. Vaganov, and E.D. Schulze (2015). Energy and Mass Exchange and the Productivity of the Main Ecosystems of Siberia (From Eddy Covariance Measurements). 1. Heat Balance Structure in the Vegetation Season. *Biology Bulletin*, 42(6), 570-578, doi: 10.1134/S1062359015660012.
 9. Metzger, C., Jansson, P.-E., Lohila, A., Aurela, M., Eickenscheidt, T., **Belelli-Marchesini, L.**, Dinsmore, K. J., Drewer, J., van Huissteden, J., and Drösler, M (2015). CO₂ fluxes and ecosystem dynamics at five European treeless peatlands – merging data and process oriented modeling, *Biogeosciences*, 12, 125-146, doi:10.5194/bg-12-125-2015.
 10. Alberti G, Vicca S, Inghima I, **Belelli-Marchesini L**, Genesio L, Miglietta F, Marjanovic H, Martinez C, Matteucci G, D'Andrea E, Peressotti A, Petrella F, Rodeghiero M, Cotrufo MF (2015). Soil C:N stoichiometry controls carbon sink partitioning between above-ground tree biomass and soil organic matter in high fertility forests. *iForest - Biogeosciences and Forestry*, vol. 8, pp 195-206, doi: 10.3832/ifer1196-008.
 11. Budishchev, A., Mi, Y., van Huissteden, J., **Belelli-Marchesini, L.**, Schaepman-Strub, G., Parmentier, F. J. W., Fratini, G., Gallagher, A., Maximov, T. C., and Dolman, A. J (2014).: Evaluation of a plot-scale methane emission model using eddy covariance observations and footprint modelling, *Biogeosciences*, 11, 4651-4664, doi:10.5194/bg-11-4651-2014.
 12. J. Joiner, Y. Yoshida, A.P. Vasilkov, K. Schaefer, M. Jung, L. Guanter, Y. Zhang, S. Garrity, E.M. Middleton, K.F. Huemmrich, L. Gu, **L. Belelli Marchesini** (2014) The seasonal cycle of satellite chlorophyll fluorescence observations and its relationship to vegetation phenology and ecosystem atmosphere carbon exchange, *Remote Sensing of Environment*, Volume 152, September 2014, Pages 375-391, ISSN 0034-4257, <http://dx.doi.org/10.1016/j.rse.2014.06.022>.
 13. O. Peltola, A. Hensen, C. Helfter, **L. Belelli Marchesini**, F. Bosveld, W. C. M. van den Bulk, J. Elbers, S. Haapanala, J. Holst, T. Laurila, A. Lindroth, E. Nemitz, T. Röckmann, A. Vermeulen and I. Mammarella (2014). Evaluating the performance of commonly used gas analyzers for methane eddy covariance flux measurements: the InGOS intercomparison field experiment. *Biogeosciences*, 11, 3163-3186, doi:10.5194/bg-11-3163-2014.
 14. V. Kasurinen, F. Berninger, K. Alfretdsen, P. Kolari, I. Mammarella, P. Alekseychik, T. Vesala, P. Bernier, J. Boike, **L. Belelli Marchesini**, T. Sachs, M. Langer, T. Ohta, F. Berninger (2014). Modeling latent heat exchange in the boreal and arctic biomes. *Global Change Biology*, vol. 20, 11, 3439-3456, DOI:10.1111/gcb.12640.
 15. Rey A., **Belelli Marchesini L**, Etiopie G., Papale D., Canfora E., Valentini R., Pegoraro E. (2014). Partitioning the net ecosystem carbon balance of a semiarid steppe into biological and geological components. *BIOGEOCHEMISTRY*, vol. 118, p. 83-101, ISSN: 0168-2563, doi: 10.1007/s10533-013-9907-4.
 16. N. M. Tchebakova, N. N. Vygodskaya, A. Arneth, **L. Belelli Marchesini**, O. Kolle, Yu. A. Kurbatova, E. I. Parfenova, R. Valentini, E. A. Vaganov, and E.D. Schulze (2014). Energy and Mass Exchange and the Productivity of the Main Ecosystems of Siberia (From Eddy Covariance Measurements). 2. Carbon fluxes and productivity. *ИЗВЕСТИЯ РАН. СЕРИЯ БИОЛОГИЧЕСКАЯ (Izvestiya Rossiiskoi Akademii Nauk – Seriya Biologicheskaya)* 2014, № 1, p. 65–75. ISSN: 0002-3329, DOI: 10.7868/S0002332914010044.
 17. N. M. Tchebakova, N. N. Vygodskaya, A. Arneth, **L. Belelli Marchesini**, O. Kolle, Yu. A. Kurbatova, E. I. Parfenova, R. Valentini, E. A. Vaganov, and E.D. Schulze (2013). Energy and Mass Exchange and the Productivity of the Main Ecosystems of Siberia (From Eddy Covariance Measurements). 1. Heat Balance Structure in the Vegetation Season. *ИЗВЕСТИЯ РАН. СЕРИЯ БИОЛОГИЧЕСКАЯ (Izvestiya Rossiiskoi Akademii Nauk – Seriya Biologicheskaya)* 2013, № 6, p. 728–737. ISSN: 0002-3329, DOI: 10.7868/S0002332913060039.
 18. Dolman AJ, Shvidenko A, Schepaschenko D, Ciais P, Tchebakova N, Chen T, van der Molen MK, **Belelli Marchesini L**, Maximov TC, Maksyutov S, Schulze E-D (2012). An estimate of the terrestrial carbon budget of Russia using inventory-based, eddy covariance and inversion methods. *BIOGEOSCIENCES*, vol. 9, p. 5323-5340, ISSN: 1726-4170, doi: doi:10.5194/bg-9-5323-2012.
 19. Rey A, Etiopie G, **Belelli Marchesini L**, Papale D, Valentini R (2012). Geologic carbon sources may confound ecosystem carbon balance estimates: Evidence from a semiarid steppe in the southeast of Spain. *JOURNAL OF GEOPHYSICAL RESEARCH. BIOGEOSCIENCES*, vol. 117, ISSN: 0148-0227, doi: 10.1029/2012JG001991.

20. Rey, **L. Belelli Marchesini**, A. Were, P. Serrano, G. Etiope, E. Pegoraro, F. Domingo, D. Papale (2011) Wind as the main driver of ecosystem carbon exchange in a semi-arid alpha grass steppe in the South East of Spain. *Global Change Biology*, vol. 18, 2, 539-554. DOI: 10.1111/j.1365-2486.2011.02534.x.
21. Yuan, W., Y. Luo., X. Li, S. Liu, G. Yu, T. Zhou, M. Bahn, A. Black, A. R. Desai, A. Cescatti, B. Marcolla, C. Jacobs, J. Chen, M. Aurela, C. Bernhofer, B. Gielen, G. Bohrer, D. R. Cook, D. Dragoni, A. L. Dunn, Damiano Gianelle, Thomas Grünwald, Andreas Ibrom, Monique Y. Leclerc, A. Lindroth, H. Liu, **L. Belelli Marchesini**, L. Montagnani, G. Pita, M. Rodeghiero, A. Rodrigues, G. Starr, and P. C. Stoy (2011) Redefinition and global estimation of basal ecosystem respiration rate, *Global Biogeochem. Cycles*, 25, GB4002, doi:10.1029/2011GB004150.
22. Gilmanov T.G, L. Aires, Z. Barcza, V. S. Baron, **L. Belelli**, J. Beringer, D. Billesbach, D. Bonal, J. Bradford, E. Ceschia, D. Cook, C. Corradi, A. Frank, D. Gianelle, C. Gimeno T., Gruenwald, Haiqiang Guo, N. Hanan, L. Haszpra, J. Heilman A. Jacobs, M. B. Jones, D. A. Johnson, G. Kiely, Shengong Li, V. Magliulo E. Moors, Z. Nagy, M. Nasyrov, C. Owensby, K. Pinter, C. Pio, M. Reichstein, M. J. Sanz, R. Scott, J. F. Soussana, P. C. Stoy, T. Svejcar, Z. Tuba, and Guangsheng Zhou (2010), Productivity, Respiration, and Light-Response Parameters of World Grassland and Agroecosystems Derived From Flux-Tower Measurements, *Rangeland Ecol Manage* 63:16–39 DOI: 10.2111/REM-D-09-00072.1
23. N. Vuichard, P. Ciais, **L. Belelli Marchesini**, P. Smith, and R. Valentini (2010). On the Ability of the ORCHIDEE Global Vegetation Model to Simulate Carbon and Water Fluxes of a Southern Siberian Steppe, *Rangeland Ecol Manage* 63:51–61 DOI: 10.2111/REM-D-09-00028.1
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86. Anton Yagolnikov (2018). Temporal and spatial variability of root productivity in a broadleaved-coniferous forest stand in the territory of the Botanical Garden Institute-Vladivostok (in Russian). Bachelor thesis in Ecology and Land Management, Far Eastern Federal University, Vladivostok, Russia. **Luca Belelli Marchesini** (supervisor), Yulia Galysheva (editor).
87. Anna Shvedova (2018). Characterization of the above-ground and below-ground components of the carbon cycle of a mixed broadleaved- coniferous forest in the territory of the Botanical garden Institute – Vladivostok. Master thesis in Ecology and Land Management, Far Eastern Federal University, Vladivostok, Russia. **Luca Belelli Marchesini** (supervisor), Yulia Galysheva (editor).
88. Dmitry Sherstnev (2018). Comparative characteristic of typical forest stands and soils of southern Primorye on slopes with southern and northern exposition. Bachelor thesis in Soil Science, Far Eastern Federal University, Vladivostok, Russia. **Luca Belelli Marchesini** (supervisor).
89. Sergey Korovitzkii (2017). Study of seasonal dynamics of CO₂ and CH₄ fluxes in the soils of the Far Eastern Federal University campus (in Russian). Bachelor thesis in Soil Science Far Eastern Federal University, Vladivostok, Russia. **Luca Belelli Marchesini** (Supervisor).
90. Claudia Consalvo (2009). Analisi della biodiversità e dell'assorbimento di carbonio in una foresta tropicale equatoriale in Africa(Analysis of biodiversity and carbon sink capacity of a tropical rainforest in Africa); Riccardo Valentini (supervisor), **Luca Belelli Marchesini** (co-supervisor) ; Ciro De Pace (reviewer). Academic Year 2007/2008. University of Tuscia- Viterbo, M.Sc. thesis in Forest Ecology. (in Italian).
91. **L. Belelli Marchesini** (2007). Analysis of the carbon balance of steppe and old field ecosystems of Central Asia. University of Tuscia - Viterbo, PhD thesis in Forest Ecology – XVIII cycle. 209 pp. (<http://dspace.unitus.it/handle/2067/540>)
92. **L. Belelli Marchesini** (2002) Flussi di carbonio ed energia in una formazione pioniera della taiga della Siberia centrale (Carbon and energy fluxes over a pioneer forest stand of the taiga in Central Siberia), Academic Year 2001/2002, University of Tuscia – Viterbo, M.Sc. thesis in Forest Ecology, 134 pp. (in Italian).

UNPUBLISHED CONTRIBUTIONS

INVITED ORAL PRESENTATIONS:

L. Belelli Marchesini. Incendi forestali tra cambiamenti climatici ed equilibri ecologici/Forest fires amid climate changes and ecological balances. Contribution to side vent “From the Amazon to Siberia: the impact of fires in a changing climate” of the SISC (Italian Society for Climate Sciences) “ClimRisk19” conference. MUSE, Trento (Italy), 25 October 2019.

L. Belelli Marchesini. How does soil respire? Science café “Let’s Science!”, Far Eastern Federal University – Vladivostok (Russia), 23 April 2018.

L. Belelli Marchesini. Terrestrial vegetation – climate feedbacks. Science café “Let’s Science!”, Far Eastern Federal University – Vladivostok (Russia), 19 May 2017.

L. Belelli Marchesini. Role of agricultural land in global climate change. International Investment Forum “Agro Far East and Siberia 2017”, Far Eastern Federal University – Vladivostok (Russia), 25 April 2017.

L. Belelli Marchesini. Terrestrial vegetation – climate feedbacks. Conference “The kingdom of Plants and Fungi: Far Eastern aspects”, Botanical Garden Institute of Far Eastern branch of the Russian Academy of Sciences, Vladivostok (Russia), 21 April 2017

L. Belelli Marchesini. Combining environmental benefits with Kyoto Protocol targets: case studies. GBEP side event: “Opportunities and challenges for a sustainable development of bioenergy”, Bucarest Romexpo Exhibitional Center, 22 April 2008

L. Belelli Marchesini. The Influence of Land Use/Land Management on the carbon cycle of the Eurasian steppe region. North Eurasian Earth Partnership Initiative (NEESPI) workshop, Max Planck Institute for Biogeochemistry, Jena (Germany), 14-17 March 2008.

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Luca Belelli Marchesini, Sergey Korovitchii, Valentina Tregubova, Simona Castaldi, Alina Totskaya, Dmitry Sherstnev, Olga Nesterova. Soil CO₂ and CH₄ fluxes under different land cover types of a university campus recreation area in Vladivostok. Smart and Sustainable Cities Conference, 23-25 May 2018. (oral presentation).

L. Belelli Marchesini, A. Rey, D. Papale, R. Valentini. Carbon dynamics along the rotation period of a coppiced Turkey oak forest in Central Italy. UvA-VU Symposium “Earth, Ecology, Environment and Evolution”, Amsterdam, 28-29 January 2014.

Luca Belelli Marchesini, Ko van Huissteden, Artem Budishchev, Angela Gallagher, Yan Jiao Mi, Trofim Maximov, Roman Petrov and Han Dolman (2013). Net ecosystem carbon balance of a tundra ecosystem in NE Russia, Workshop Greenhouse gas and carbon balance of the PAGE21 research sites, 21 September 2013, Abisko (SE).

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L. Belelli Marchesini, R. Valentini, V.K. Dadhwal, O.P. Toky, S.P.S. Kushwaha, A. Bombelli, L. Perugini (2005). Carbon sequestration potential assessment in India by A/R activities and implementation of pilot studies. Indo-Italian Business Seminar on Renewable Energy and Energy Conservation, New Delhi 19-20 October 2005.

L. Belelli Marchesini, R. Valentini (2005). Carbon balance of steppe ecosystems of southern Siberia. TCOS-Siberia/Siberia II Joint Meeting, FSU, Jena (Germany), 14 July 2005.

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Belelli Marchesini L., Wille C., Parmentier F.-J., Goeckede M., van Huissteden J., Aurela M., Boike J., Christensen T., Friborg T., Laurila T., Lund M., Jammert M., Kutzbach L., Maximov T. Chr., Sachs T., Shurpali N., Kuhry P. and Dolman H. The carbon budget of Eurasian Arctic sites: a synthesis from the PAGE21 flux network. Arctic Flux & Crucial Workshop, 6-9 February 2017, Hyttiala (Finland).

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O. Peltola, A. Hensen, C. Helfter, **L. Belelli Marchesini**, F. Bosveld, W. C. M. van den Bulk, S. Haapanala, T. Laurila, A. Lindroth, E. Nemitz, T. Röckmann, A. Vermeulen, I. Mammarella. Methane flux measurements on multiple scales in an agricultural landscape: linking tall tower flux measurements with short eddy covariance towers. 4th iLEAPS Science Conference, 12-16 May 2014, Nanjing (China).

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