

## CURRICULUM VITAE

### **Sonia Silvestri**

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Place and date of birth: Padova (Italy), January 11, 1972

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### **Education**

- Post-Doc, Department of Hydraulic, Maritime, Geotechnical, and Environmental Engineering, University of Padova, Italy (2002)
- PhD in Environmental System Modelling, University of Padova, Italy (1998-2001)
- Laurea in Environmental Sciences, University of Venice, Italy (1997)

### **Research and professional experience**

- 2015-present Adjunct Assistant Professor, Nicholas School of the Environment – Div. of Earth and Ocean Sciences, Duke University, Durham, North Carolina, USA.
- 2014-present Director of the Nicholas School Summer Program in Venice ““Environmental Management in a Changing World: Coping with Sea Level Rise”, Venice (Italy).
- 2013-2015 Visiting Assistant Professor, Nicholas School of the Environment – Div. of Earth and Ocean Sciences, Duke University, Durham, North Carolina, USA.
- 2011-2013 Research scientist, Nicholas School of the Environment – Div. of Earth and Ocean Sciences, Duke University, Durham, North Carolina, USA.
- 2001-2011 Coordinator of remote sensing monitoring of the Venice lagoon – Venice Water Authority, part of the Italian Ministry of Infrastructures and Transports – Consorzio Venezia Nuova.
- 2008-2011 Co-founder and Managing Director of the M.A.R.TE. Ltd. company specialized in environmental monitoring, GIS data analysis and remote sensing (10 employees).
- 1998-1999 Visiting Scientist, Environmental Systems Science Centre (ESSC-NERC), Reading, UK.

### **Teaching experience**

- 2014-present “Monitoring and Management of Coastal Wetlands, Lagoons and Estuaries” within the summer program. Boston University Study Abroad (Venice – Italy). Undergraduate level.
- 2014-present “Environmental monitoring of coastal morphology and water quality” within the summer program “Environmental Management in a Changing World: Coping with Sea Level Rise”, Venice International University (Italy). Graduate level.
- 2014-present “Introduction to satellite remote sensing of coastal areas”. Duke Study Abroad - Venice International University (Venice – Italy). Undergraduate level.
- 2013-present “Coastal wetlands, lagoons and estuaries: environmental monitoring and management”. Duke Study Abroad - Venice International University (Venice – Italy). Undergraduate level.
- 2012 spring “Remote sensing of Coastal Environments” - Nicholas School of the Environment and Civil and Environmental Engineering - Duke University. Graduate level.
- 2012-2013 “Introduction to Satellite Remote Sensing” - Nicholas School of the Environment and Civil and Environmental Engineering - Duke University. Undergraduate level.
- 2010-2011 Seminar series ‘Hydrological applications of Remote Sensing’ within the course ‘Hydrology’ for Civil and Environmental Engineers – University of Padova, Italy. Graduate level.
- 2007-2011 Seminar series ‘Applications of Remote Sensing and GIS to landfill management and control’ within the course ‘Solid waste management’ for Environmental Engineers – University of Padova, Italy. Graduate level.
- 2001-2005 “Historical and epistemological fundamentals of environmental sciences”, Inter-regional Qualifying School for middle and high school teachers, Ca’ Foscari University, Venice, Italy. Graduate level.

### **Current Research Projects**

- Leader of the team “DAG4Peat” selected for competing in the Indonesia Peat Prize (Packard Foundation).
- Remote sensing of mangroves spatial dynamics under increased nitrogen availability and lower salinity conditions. In collaboration with Utrecht University and the Smithsonian Environmental Research Center, 2014-2016.
- Bass Connection – Duke University. The Digital Landscape: New technologies to visualize ancient landscapes, 2014-2016.

### **Main Research Interests**

Multispectral and hyperspectral remote sensing applications and LiDAR data analysis applied to the modelling of environmental processes as for example:

- coastal vegetation distribution and tidal systems morphology
- shallow water quality and suspended sediment concentration retrieval
- coastal water temperature dynamics
- soil type and hydrology

- soil contamination detection
- Carbon sequestration/release in coastal environments with implications for climate change
- Salt marsh vegetation ecology and interaction with marsh morphology
- Salt marsh evolution modelling
- Geospatial multi-criteria analysis
- Mosquito populations dynamics

### Student advising

- Fateme Yousefi, PhD, Duke University. 2013- present
- Laura Elsler, MS, Graz University. 2014-2015
- Maartje Oostdijk, MS, Utrecht University. 2014-2015
- Xiaochi Zhou, PhD, Duke University. 2013-2015
- Mattia Pivato, MS, University of Padova. 2013-2014
- Yun Jian, PhD, Duke University. 2011-2014
- Valeria Volpe, MS and PhD, University of Padova. 2008-2012
- Monia Omri, MS, La Sorbonne University, Paris. 2004-2007
- Fabio Corbani, PhD, Ferrara University, 2002-2003
- Stefania Tesser, MS, Ca' Foscari University, Venice. 2003
- Laura Bravin, MS, Architectural University of Venice. 2003
- Stefania Salviato, MS, Ca' Foscari University, Venice. 1999-2000
- Maria Teresa Cibien, MS, Ca' Foscari University, Venice. 1998-1999

### Publications

#### Journal Papers:

**Silvestri S.**, De Cian E., Carta A., Marani M., Putti M. Strategic retreat from coastal areas: a cost-benefit analysis of reconverting agriculture peatlands into wetlands and forested lands. In preparation.

**Silvestri S.**, Nordio G., Sennet S. and Carniello L. Investigating and visualizing the spatial distribution of salt marsh decay in the Venice lagoon through geo-rectified historical maps and a OD analytical model. In preparation.

Jian Y, **Silvestri S**, Brown J, Hickman R, Marani M., The Predictability of Mosquito Abundance from Daily to Monthly Time Scales. In press, *Ecological Applications* 2016.

Yousefi, F., **S. Silvestri**, M. Marani, Optical and Lidar Remote Sensing of Coastal Dune Vegetation Density and Topography. Submitted, 2016.

Zhou X., Marani M., Albertson J. D., **Silvestri S.** Hyperspectral and multispectral remote sensing retrieval of suspended sediment in shallow coastal waters: a comparison of physically-based versus empirical models. Submitted, 2016.

Roner M., D'Alpaos A., Ghinassi M., Marani M., **Silvestri S.**, Franceschinis E., Realdon N. Spatial variations of salt-marsh organic and inorganic deposition, and organic carbon accumulation: inferences from the Venice lagoon, Italy. In press, *Advances in Water Resources*, 2015 (doi:10.1016/j.advwatres.2015.11.011).

Moffett, K.B.; Nardin, W.; **Silvestri, S.**; Wang, C.; Temmerman, S. Multiple Stable States and Catastrophic Shifts in Coastal Wetlands: Progress, Challenges, and Opportunities in Validating Theory Using Remote Sensing and Other Methods. *Remote Sens.* 2015, 7, 10184-10226.

Jian Y, **Silvestri S**, Brown J, Hickman R, Marani M. The Temporal Spectrum of Adult Mosquito Population Fluctuations: Conceptual and Modeling Implications. *PLoS ONE* 9(12): e114301, Dec 2014 (doi:10.1371/journal.pone.0114301)

Carniello L, **Silvestri S**, Marani M, D'Alpaos A, Volpe V, Defina A. Sediment dynamics in shallow tidal basins: In situ observations, satellite retrievals, and numerical modeling in the Venice Lagoon. *Journal of Geophysical Research: Earth Surface* 119(4): 802-815, Apr 2014 (DOI: 10.1002/2013JF003015)

Jian Y, **Silvestri S.**, Belluco E., Saltarin A., Chillemi G., Marani M., Environmental forcing and density-dependent controls of *Culex pipiens* abundance in a temperate climate (Northeastern Italy). *Ecological Modelling*, 272: 301-310, Jan 2014 (doi: 10.1016/j.ecolmodel.2013.10.019)

Teatini P., Tosi L., Viezzoli A, Baradello L, Zecchin M., **Silvestri S.**, Understanding the hydrology of the Venice Lagoon subsurface with airborne electromagnetics, *Journal of Hydrology*, 411: 342-354, 2011 (doi: 10.1016/j.jhydrol.2011.10.017)

Volpe V., **S. Silvestri** and M. Marani, Remote sensing retrieval of suspended sediment concentration in shallow waters, *Remote Sensing of Environment*, vol. 115, pp. 44-54, 2011 (doi: 10.1016/j.rse.2010.07.013.2011.) .

Viezzoli A., Tosi L., Teatini P., **Silvestri S.**, Surface water-groundwater exchange in transitional coastal environments by airborne electromagnetics: the Venice Lagoon example, *Geophysical Research Letters*, vol. 37, L01402, 2010 (doi: 10.1029/2009GL041572.2010.) .

Tosatto, O., E. Belluco, **S. Silvestri**, N. Ursino, A. Comerlati, M. Putti, M. Marani, Reply to comment on 'Spatial organization and ecohydrological interactions in oxygen-limited vegetation ecosystems by Marani et al, by L.R. Gardner', *Water Resources Res.*, vol. 45, 2009 (doi:10.1029/2007WR006345)

Biotto G., **Silvestri S.**, Gobbo L., Furlan E., Valenti S., Rosselli R., GIS, multi-criteria and multi-factor analysis for the probability assessment of the existence of illegal landfills, *Intl. J. of Geographical Information Science*, vol. 115, pp. 1-12, 2008.

**Silvestri S.** and Omri M., A method for the remote sensing identification of uncontrolled landfills: formulation and validation, *Intl. J. of Remote Sensing*, vol. 29 no. 4, pp. 975-989 , 2008.

Marani, M., Zillio, T., Belluco, E., **Silvestri S.** and Maritan, A. Non-neutral vegetation dynamics, *PLoS ONE*, vol. 1 no. 1, 2006 (doi:10.1371/journal.pone.0000078, 2006.)

Belluco E., M. Camuffo, S. Ferrari, L. Modenese, **S. Silvestri**, A. Marani, M. Marani, Mapping salt-marsh vegetation by multispectral and hyperspectral remote sensing, *Remote Sensing of Environment*, vol. 105, pp. 54-67 , 2006.

Marani M., **S. Silvestri**, E. Belluco, N. Ursino, A. Comerlati, O. Tosatto, M. Putti, Spatial organisation and ecohydrological interactions in oxygen-limited vegetation ecosystems, *Water Resources Research*, vol. 142 no. W06D06 , 2006 (doi:10.1029/2005WR004582) .

Marani M., E. Belluco, S. Ferrari, **S. Silvestri**, A. D'Alpaos, S. Lanzoni, A. Feola, A. Rinaldo. Analysis, synthesis and modelling of high-resolution observations of salt-marsh ecogeomorphological patterns in the Venice lagoon, *Estuarine Coastal and Shelf Science*, vol. 69, Issue 3-4, pp. 414-426, 2006 (doi: 10.1016/j.ecss.2006.05.021).

**Silvestri S.**, A. Defina, M. Marani, Tidal regime, salinity and salt-marsh plant zonation, *Estuarine Coastal and Shelf Science*, vol. 62 no. 119-130, 2005 (ISSN: 0272-7714, 2005.)

Marani, M., N. Ursino, **S. Silvestri**, Reply to Comment by A.M. Wilson and L.R. Gardner on 'Subsurface flow and vegetation patterns in tidal environments' by Wilson and Gardner, *Water Resources Research*, vol. 41, W07022, 2005 (doi:10.1029/2004WR003722).

Gambolati G., Putti M., Teatini P., Camporese M., Ferraris S., Gasparetto Stori G., Nicoletti V., **Silvestri S.**, Rizzetto F., Tosi L. Peat Land Oxidation Enhances Subsidence in the Venice Watershed. *EOS, Transactions AGU*, vol. 86, n.23: 217-224, 2005 (DOI: 10.1029/2005EO230001)

Ursino, N., **S. Silvestri**, M. Marani, Subsurface flow and vegetation patterns in tidal environments, *Water Resources Research*, vol. 40, 2004 (ISSN: 0043-1397. W05115 doi:10.1029/2003WR002702, 2004).

Marani M., S. Lanzoni, **S. Silvestri**, and A. Rinaldo, Tidal landforms, patterns of halophytic vegetation and the fate of the lagoon of Venice, *J. Marine Syst.*, vol.51, pp. 191-210, 2004.

**Silvestri S.**, M. Marani, A. Marani, Hyperspectral remote sensing of salt marsh vegetation and morphology, *Physics and Chemistry of the Earth*, 28 (1-3), pp. 15-25, 2004.

**Silvestri S.**, Marani, M., S. Salviato, A. Marani, Il telerilevamento iperspettrale applicato allo studio delle relazioni tra morfologia e alofite in laguna di Venezia, *Rivista Italiana del Telerilevamento*, 25, 2002.

**Silvestri S.**, M. Marani, J. Settle, F. Benvenuto, A. Marani, Salt Marsh Vegetation Radiometry: Data Analysis and Scaling, *Remote Sensing of Environment*, 80, pp. 473-482, 2002.

#### Chapters in books

Carniello L., Nordio G., D'Alpaos A., **Silvestri S.** Effetti delle costruzione dei moli alla bocca di Lido (Venezia) sulla stabilit  delle barene in laguna Nord. Submitted, 2016.

**Silvestri S.**, and M. Marani, Salt marsh vegetation and morphology, modelling and remote sensing observations, in *Ecogeomorphology of Tidal Marshes* (Eds. Fagherazzi S., Marani M., Blum L.), American Geophysical Union, Coastal and Estuarine Monograph Series, Washington, 2004.

#### Proceedings

Volpe V., L. Carniello, **S. Silvestri**, A. Defina, M. Marani. Remote sensing and modelling of suspended sediment concentration in the Venice lagoon. RCEM2011 – The 7th IAHR Symposium on River, Coastal and Estuarine Morphodynamics, Tsinghua University, Beijing, China, 06-08 September 2011.

**Silvestri S.**, A. Viezzoli, A. Edsen, E. Auken, M. Giada. The use of remote and proximal sensing for the identification of contaminated landfill sites, Twelfth International Waste Management and Landfill Symposium, S. Margherita di Pula (Cagliari), Sardinia, Italy, 5 – 9 October 2009.

A. Viezzoli, A. Edsen, E. Auken, **Silvestri S.** The use of satellite remote sensing and helicopter TEM data for the identification and characterization of contaminated landfill sites, Near Surface 2009 – the 15th European Meeting of Environmental and Engineering Geophysics of the Near Surface Geoscience Division of EAGE, 7 – 9 September 2009.

Doak M., Khan S., Kelly G. and **Silvestri S.** The use of remote sensing to map illegal landfills at the border of Ireland/Northern Ireland, 11th International Waste Management and Landfill Symposium, S. Margherita di Pula (Cagliari), Sardinia, Italy, October 2007.

**Silvestri, S.**, V. Volpe, M. Marani, C. Badetti, R. Rosselli, G. Ferrari, Use of satellite remote sensing to assess shallow water turbidity in the Venice lagoon, Annual Meeting of the International Association for Hydraulic Research, Venice, July 2007.

**Silvestri S.**, M. Omri, R. Rosselli. The use of remote sensing to map illegal dumps in the Veneto plain, SARDINIA 2005, Tenth International Waste Management and Landfill Symposium, S. Margherita di Pula (Cagliari), Italy, 3-7 October 2005.

Omri M., **S. Silvestri**, R. Rosselli. Methods to discriminate waste material dumps through remote sensing: a comparison analysis, SARDINIA 2005, Tenth International Waste Management and Landfill Symposium, S. Margherita di Pula (Cagliari), Italy, 3-7 October 2005.

Fior F., R. Rosselli, **S. Silvestri**, G. Biotto, E. Furlan, L. Gobbo, M. Omri, S. Valenti, S. Rampazzo, V. Nicoletti, C. Buzzino, P. Beltrame, M. Dal Tin, A. Bellomo, S. Beghi, The use of remote sensing and GIS to map illegal dumps: a project sponsored by the Veneto region, SARDINIA 2005, Tenth International Waste Management and Landfill Symposium, S. Margherita di Pula (Cagliari), Italy, 3-7 October 2005.

Belluco, E., M. Camuffo, S. Ferrari, **S. Silvestri**, A. Marani, M. Marani, Sull'osservazione e l'analisi della morfologia e della vegetazione di ambienti a marea mediante il telerilevamento, XXIX Convegno di Idraulica e costruzioni idrauliche, Trento, Italy, 7-10 September 2004.

Marani, M., R. Aspden, E. Belluco, M. Camuffo, A. D'Alpaos, J. Korczak, S. Lanzoni, C. MacGregor, A. Marani, D. Mason, M. Menenti, D. Paterson, A. Quirin, R. Rigon, A. Rinaldo, T. Scott, **S. Silvestri**, S. Vardy, C. Wang, Observations and ecogeomorphological modelling of tidal environments, XXIX Convegno di Idraulica e costruzioni idrauliche, Trento, Italy, 7-10 September 2004.

**Silvestri S.** and A. Garzon, Integrazione di dati satellitari in un modello idrodinamico per lo studio della qualità dell'acqua in laguna di Venezia, Convegno ASITA, Perugia, Italy, 2003.

**Silvestri S.**, A. Garzon, F. Corbani, "The use of satellite data to calibrate a hydrodynamic model of the Venice Lagoon", IGARSS IEEE Conference, Tolosa, France, 21-25 July 2003.

Nicoletti V., **S. Silvestri**, F. Rizzetto, L. Tosi, M. Putti, P. Teatini, "Use of remote sensing for the delineation of surface peat deposits south of the Venice Lagoon (Italy)", IGARSS IEEE Conference, Tolosa, France, 21-25 July 2003.

Marani M., E. Belluco, M. Camuffo, A. D'Alpaos, A. Defina, S. Lanzoni, A. Marani, **S. Silvestri**, A. Rinaldo, "Patterns in tidal environments: networks and vegetation", IGARSS IEEE Conference, Tolosa, France, 21-25 July 2003.

Rinaldo, A., M. Marani, **S. Silvestri**, G. Botter, A. Bellin, R. Rigon, M. Ferri, F. Baruffi, A. Rusconi, Sul tempo di ritorno delle piene: metodi geomorfologici-montecarlo e fiume Brenta chiuso a Bassano, Atti dei Convegni Lincei, 198, 33-54, 2003.

Rinaldo, A., M. Marani, **S. Silvestri**, G. Botter, A. Bellin, R. Rigon, M. Ferri, F. Baruffi, A. Rusconi, Sulle piene del Brenta chiuso a Bassano, Atti del Convegno Piani di Bacino e Governo dei Fiumi, Istituto Veneto di Scienze, Lettere ed Arti, Giugno 2002.

Rinaldo, A., M. Marani, A. Fornasiero, G. Botter, **S. Silvestri**, A. Bellin, R. Rigon, M. Ferri, F. Baruffi, A. Rusconi, Modelli geomorfologici-Montecarlo per la valutazione del tempo di ritorno di piene

fluviali: fiume Brenta chiuso a Bassano, Atti XXVIII Convegno Nazionale di Idraulica e Costruzioni Idrauliche, vol. I, p. 271-278, Potenza, 2002.

**Silvestri S.**, M. Marani, A. Rinaldo, A. Marani, Vegetazione alofila e morfologia lagunare, Atti dell'Istituto Veneto di Scienze Lettere ed Arti, Classe di Scienze Fisiche Matematiche e Naturali, vol. 158 II, p. 333-359 2000.

### Abstracts

Yousefi F., **Silvestri S.**, Moore L. J., Marani M, The relation between vegetation and topographic patterns in coastal dunes from lidar and optical remote sensing. Annual Meeting of the American Geophysical Union, San Francisco, December 2015.

Yousefi F., Marani M., **Silvestri S.** Study of the variations of organic matter content in salt-marsh soils. Duke University Ecology Symposium, Beaufort NC, November 2015.

Yousefi F., **Silvestri S.**, Moore L. J., Marani M, Remote Sensing of Vegetation in Coastal Dune Systems. Ecological Society of America: the 2015 Annual Meeting. Baltimore, August 9-14, 2015.

**S. Silvestri**, R. Laanbroek, M. Rains, J. Verhoeven, D. Whigham. Using remote sensing to study mangroves spatial dynamics under increased nitrogen availability and lower salinity conditions. Annual Meeting of the American Geophysical Union, San Francisco, December 2014.

Sennett S. and **Silvestri S.** The ancient salt marsh landscape of the Venice lagoon. The Age of Sensing. 5th International Conference on Remote Sensing in Archaeology. Space to Pace Initiative. Duke University, 13 – 15 October 2014.

Zhou, X, Marani, M, Albertson, J D, **Silvestri, S**, Remote sensing retrieval of water constituents in shallow coastal waters with applications to the Venice lagoon. Annual Meeting of the American Geophysical Union, San Francisco, December 2013.

Jian, Y., **Silvestri, S**, Marani, M, Saltarin, A, Chillemi, G. A Hierarchical Approach Embedding Hydrologic and Population Modeling for a West Nile Virus Vector Prediction. Annual Meeting of the American Geophysical Union, San Francisco, December 2013.

Zhou X., **Silvestri S.**, Albertson M., Marani M., Remote sensing estimation of water constituent concentrations in tidal systems: a case study, NSF IGERT-WISENet Workshop, Duke University, June 5, 2013.

Carniello, L., Defina, A, D'Alpaos, L, Volpe, V, **Silvestri, S**, Marani, M, Modelling sediment transport in shallow microtidal basins: comparison with point observations and satellite images. Annual Meeting of the American Geophysical Union, San Francisco, December 2012.

Belluco, E., T. Zillio, **S. Silvestri**, A. Maritan, M. Marani, Observed vegetation patterns in tidal environments: neutral vs. non-neutral explanations, Annual Meeting of the American Geophysical Union, San Francisco, December 2009.

Volpe, V., **S. Silvestri**, M. Marani, Suspended sediment estimation via Remote Sensing in shallow coastal waters, General Assembly of the European Geosciences Union, Vienna, April 2009.

Marani, M., E. Belluco, **S. Silvestri**, M. Camuffo, A. Marani, T. Zillio, A. Maritan, Intertidal Ecogeomorphology: Remote Sensing and Modelling, Fall Meet. Suppl., American Geophysical Union, San Francisco, December 2006.

Marani, M., T. Zillio, E. Belluco, **S. Silvestri**, A. Maritan, The spatial distribution of wetland vegetation diversity, 5th International Conference on Ecological Informatics ISEI5, Santa Barbara, December 2006.

Belluco, E., A. Feola, S. Ferrari, **S. Silvestri**, M. Camuffo, L. Modenese, A. Marani, M. Marani, Applications of Remote Sensing in the study of tidal environment ecogeomorphology, 5th International Conference on Ecological Informatics ISEI5, Santa Barbara, December 2006.

Belluco, E., M. Camuffo, S. Ferrari, L. Modenese, **S. Silvestri**, A. Marani, M. Marani, Remote sensing of salt-marsh ecogeomorphology, GlobWetland Symposium - Looking at Wetlands from Space, ESA-ESRIN, Frascati, October 2006.

Marani, M., **S. Silvestri**, E. Belluco, N. Ursino, A. Comerlati, O. Tosatto, M. Putti, Ecohydrological interactions in oxygen-limited vegetation ecosystems, Eos Transactions AGU, 86(52), Fall Meet. Suppl., American Geophysical Union, San Francisco, December 2005.

Belluco, E., S. Ferrari, A. Feola, **S. Silvestri**, M. Camuffo, Modenese L., A. Marani, M. Marani, Applications of remote sensing in the study of tidal environment ecogeomorphology, Coasts and Coastal People - Scenarios of Change and Responses Land-Ocean Interactions in the Coastal Zone LOICZ II Inaugural Open Science Meeting, Egmond aan Zee, June 2005.

Belluco, E., S. Ferrari, A. Feola, **S. Silvestri**, M. Camuffo, L. Modenese, A. Marani, M. Marani, Applications of remote sensing in the study of tidal environment ecogeomorphology, 8th International Conference on Remote Sensing for Marine and Coastal Environments, Nova Scotia, May 2005.

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Ferrari, S., E. Belluco, M. Camuffo, L. Modenese, **S. Silvestri**, A. Marani, M. Marani, Remote sensing of salt-marsh biodiversity, European Geosciences Union, 1st General Assembly, Vienna, April 2005.

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S. Ferrari, E. Belluco, A. Feola, **S. Silvestri**, M. Camuffo, A. Marani, M. Marani, Remote sensing in the study of salt-marshes vegetation distribution and biodiversity, European Conference on Coastal Zone Research: an ELOISE Approach, Portoroz, Slovenia, 15-18 November, 2004.

E. Belluco, M. Camuffo, S. Vardy, S. Ferrari, **S. Silvestri**, D. Paterson, A. Marani and M. Marani, Salt marshes and mudflats monitoring from remote sensing, European Conference on Coastal Zone Research: an ELOISE Approach, Portoroz, Slovenia, 15-18 November, 2004.

M. Camuffo, L. Modenese, M. Abbadessa, E. Belluco, **S. Silvestri**, M. Marani, A. Marani, Vegetation patches in Venice salt marshes: spatial analysis from remote sensing, European Conference on Coastal Zone Research: an ELOISE Approach, Portoroz, Slovenia, 15-18 November, 2004.

M. Marani, E. Belluco, M. Camuffo, A. D'Alpaos, A. Feola, S. Ferrari, S. Lanzoni, A. Marani, L. Modenese, A. Rinaldo, **S. Silvestri**, Observations and ecogeomorphological modelling of tidal



environments, European Conference on Coastal Zone Research: an ELOISE Approach, Portoroz, Slovenia, 15-18 November, 2004.

M. Marani E. Belluco, M. Camuffo, A. D'Alpaos, A. Feola, S. Ferrari, S. Lanzoni, A. Marani, L. Modenese, A. Rinaldo, **S. Silvestri**, Observations and Ecogeomorphological Modelling of Tidal Environments, AGU Chapman Conference on Salt Marsh Geomorphology: Physical and Ecological Effects on Landform, Halifax, Nova Scotia, Canada, 9-13 October 2004.

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**Silvestri S.**, F. Corbani, A. Garzon, Calibration of a hydrodynamic model of the Venice lagoon using satellite data, European Geophysical Society, XXVIII General Assembly, Nice, 2003.

Belluco E., **S. Silvestri**, M. Marani, M. Camuffo, A. Marani, Remote sensing of salt marsh vegetation, European Geophysical Society, XXVIII General Assembly, Nice, 2003.

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Camuffo M., E. Belluco, **S. Silvestri**, A. Marani, M. Marani. "Remote sensing of vegetation in tidal environments", European Conference on Coastal Zone Research: an ELOISE approach, Gdansk, Poland, 24-27 March 2003.

Camuffo M., E. Belluco, **S. Silvestri**, M. Marani, A. D'Alpaos, A. Marani, "Vegetation in tidal environments: spatial analyses from remote sensing", Southern European Coastal Lagoons: The Influence of River Basin-Coastal Zone interactions, Castello Estense, Ferrara, Italy, 10-12 November 2003.

Camuffo M., E. Belluco, **S. Silvestri**, A. Marani, M. Marani, "Salt marsh monitoring from remote sensing", Airborne remote sensing for Geophysical and Environmental Applications, Workshop, Roma, Italy, 14-16 April 2003.

Marani M., **S. Silvestri**, E. Belluco, M. Camuffo, A. D'Alpaos, S. Lanzoni, A. Marani, A. Rinaldo, "Patterns in tidal environments: salt-marsh channel networks and vegetation", Eos Transactions AGU, 84(46), Fall Meet. Suppl., American Geophysical Union, S. Francisco, U.S.A., 8-12 December 2003.

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