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- **MATERIE DI RIFERIMENTO:** Physics Applied to Medicine & Biophysics
- **BIOGRAPHY:**

Laureato in Scienze Ambientali, ha poi ottenuto il Dottorato presso il Dipartimento di Scienze Ambientali della Seconda Università di Napoli. Attualmente lavora come Docente presso la School of Geography, Geology and the Environment di Keele in Inghilterra. E' stato ricercatore presso il CISRO ed ha vinto innumerevoli premi e borse di studio.

## **ESPERIENZE RECENTI**

- **School of Geography, Geology and the Environment, Keele University / in corso**  
Docente
- **Università della Campania (ex- SUN) / 2013 > 2017**  
Scienziato ricercatore presso il Dipartimento di Matematica e Fisica (DMF)
- **Visiting scientist** presso **CSIRO** (Commonwealth Scientific and Industrial Research Organization) Oceans and Atmosphere flagship, ad Aspendale (Victoria, Australia)
- **CSIRO, Marine and Atmospheric Research / 2012 > 2013**  
Research scientist

## PUBBLICAZIONI ACCADEMICHE

### 1. Publicazioni – h index (secondo scopus.com): 12

#### 2017

A28. Graven, H. Allison, C.E. Etheridge, D.M. Hammer, S. Keeling, R.F. Levin, I. Meijer, H.A.J. Rubino, M. Tans, P.P. Trudinger, C.M. Vaughn, B.H. and White, J.W.C. Compiled records of carbon isotopes in atmospheric CO<sub>2</sub> for historical simulations in CMIP6, *Geoscientific Model Development*, 10, 4405-4417

A27. Di Fusco, E., Rubino, M., Di Rienzo, B., Stellato, L., Marzaioli, F., Ricci, A., Porzio, G., Terrasi, F., D'onofrio, A., Measurements of  $\delta^{11}\text{B}$  in water by use of a mass spectrometer with accelerator, *NIMB*, 412: 109-114

A26. Meinshausen, M., Vogel, E., Nauels, A., Lorbacher, K., Meinshausen, N., Etheridge, D., Fraser, P., Montzka, S.A., Rayner, P., Trudinger, C., Krummel, P., Beyerle, U., Canadell, J.G., Daniel, J.S., Enting, I., Law, R.M., Lunder, C.R., O'Doherty, S., Prinn, R.G., Reimann, S., Rubino, M., Velders, G.J.U., Vollmer, M.K., Wang, R.H.J., Weiss, R. Historical greenhouse gas surface concentrations from year 0 to 2014 for CMIP6, *Geoscientific Model Development*, 10: 1-60

A25. Fogwill, C., Turney, C., Golledge, N.R., Etheridge, D., Rubino, M., Thornton, D.P., Baker, A., Woodward, J., Winter, K., van Ommen, T.D., Moy, A., Curran, M., Davies, S., Weber, M.E., Bird, M., Munksgaard, N., Menviel, L., Rootes, C.M., Ellis B., Millman, H., Vohra J., Rivera, A.N., Cooper A., Sustained Antarctic contribution to abrupt global sea level rise during Meltwater Pulses 1A and 1B, *Scientific Reports*, 7, 39979

#### 2016

A24. Stellato, L., Di Rienzo, B., Di Fusco, E., Rubino, M., Marzaioli, F., Allocca, V., Salluzzo, A., Rimauro, J., Romano, N., Celico, F., Surface water - Groundwater connectivity implications on nitrate cycling assessed by means of hydrogeologic and isotopic techniques in the Alento river basin (Salerno, Italy): Preliminary data *Rendiconti Online Societa Geologica Italiana*, 41: 80-83

A23. Jenk, T. Rubino, M., Etheridge, D. Ciobanu, V.G. Blunier, T., A new setup for simultaneous high precision measurements of paleo-atmospheric

CO<sub>2</sub>, δ<sup>13</sup>C-CO<sub>2</sub> and δ<sup>18</sup>O-CO<sub>2</sub> on small ice core samples, accepted on *Atmospheric Measurement Techniques*, 9(8): 3687-3706

A22. Rubino, M., Etheridge, D.M. Trudinger, C.M. Allison, C.E. Rayner P.J. Enting, I. Mulvaney, R. Steele, L.P. Langenfelds, R.L. Sturges, W.T. Curran, M.A.J. Smith, A.M., Low atmospheric CO<sub>2</sub> during the Little Ice Age due to cooling-induced terrestrial uptake, *Nature Geoscience*, 9: 691-694

A21. Rubino, M., D'Onofrio, A., Seki, O., Bendle, J., Ice core records of biomass burning, *The Anthropocene Reviews*, 3(2): 140 -162

## 2014

A20. Rubino M., Milin S., Balesdent J. Measurement of the <sup>13</sup>C/<sup>12</sup>C ratio of soil amino acids by IRMS of trimethylsilyl derivatives: first assessment, accepted for publication in *Isotopes in Environmental and Health Studies*, 50(4): 516-530

A19. Helmig, D. Petrenko, V. Martinerie, P. Witrant, E. Roeckmann, T. Zuiderweg, A. Holzinger, R. Hueber, J. Stephens, C. Sturges, W. Baker, A. Blunier, T. Etheridge, D. Rubino, M. Tans, P. Parrish, D. Reconstruction of Northern Hemisphere 1950 – 2010 Non-Methane Hydrocarbon Emissions, *Atmospheric Chemistry and Physics*, 14, 1463-1483

## 2013

A18. Turney, C. Fogwill, C. van Ommen, T. Moy, A. Etheridge, D. Rubino, M. Curran, M. Rivera, A. Late Pleistocene and early Holocene Change in the Weddell Sea: A New High-Resolution Climate Record from Patriot Hills, Ellsworth Mountains, West Antarctica, *Journal of Quaternary Science*, 28 (7): 697–704

A17. Rubino, M. Etheridge, D.M. Trudinger, C. Allison, C. Battle, M.O. Langenfeld, R.L. Steele, L.P. Curran, M. Bender,

M. White, J.W.C. Jenk, T. Blunier, T. Francey, R. A revised 1000 year atmospheric δ<sup>13</sup>C-CO<sub>2</sub> record from Law Dome and South Pole, Antarctica, *Journal of Geophysical Research*, 118: 8482–8499 (AGU spotlight in EOS)

A16. Trudinger C., Enting, I., Rayner, P. Etheridge, D. Buizert, C. Rubino, M. Krummel, P. B. Blunier (2013), T. How well do different tracers constrain the firn diffusivity profile? *Atmospheric Chemistry Physics*, 13, 1485–1510

A15. NEEM Community (2013), Eemian interglacial reconstructed from a Greenland folded ice core, *Nature*, 493 (7433): 489-494

**2012**

A14. Ricci P., Mongelli V., Vitiello A., Campana S., Sirignano C., Rubino M., Fornaciari G., Lubritto, C. (2012) The privileged burial of the Pava Pieve (Siena, 8th century AD), *Rapid Communications in Mass Spectrometry*, 26(20): 2393-2398

A13. Ahn J., Brook E.J., Mitchell L., Rosen J., McConnell J.R., Taylor K., Etheridge D., Rubino M. (2012) Atmospheric CO<sub>2</sub> over the last 1000 years: A high resolution record from the West Antarctic Ice Sheet (WAIS) Divide ice core, *Global Biogeochemical Cycles*, 26, GB2027

Writant, A12. Buizert, C. Martinerie, P. Petrenko, V.V. Severinghaus, J.P. Trudinger, C.M. E. Rosen, J.L. Orsi, A. Rubino, M. Etheridge D.M. Steele, L.P. Hogan, C. Laube, J.C. Sturges, W.T. Levchenko, V.A. Smith, A.M. Levin, I. Conway, T.J. Dlugokencky, E.J. Lang, P.M. Kawamura, K. Jenk, T.M. Sowers, T Schwander, J. Blunier, T. (2012) Multiple-tracer firn air transport characterisation and model intercomparison for NEEM, Northern Greenland, *Atmospheric Chemistry and Physics*, 12: 4259-4277

**2010**

A11. Rubino M., Dungait J.A.J., Evershed R.P., Bertolini T., De Angelis P., D'Onofrio A., Lagomarsino A., Lubritto C., Merola A., Terrasi F., Cotrufo M.F (2010), Carbon input belowground is the major C flux contributing to leaf litter mass loss: Evidences from a <sup>13</sup>C labelled-leaf litter experiment, *Soil Biology & Biochemistry*, 42 (7): 1009-1016

**2009**

A10. Rubino M., Lubritto C., D'Onofrio A., Terrasi F., Kramer C., Gleixner G., Cotrufo M. F. (2009) Isotopic evidences for microbiologically mediated and direct C input to soil compounds from three different leaf litters during their decomposition, *Environmental Chemistry Letters*, 7: 85-95

**2007**

A9. Rubino M. Lubritto C., D'Onofrio A., Terrasi F., Gleixner G., Cotrufo M. F. (2007), An isotopic method for testing the influence of leaf litter quality on carbon fluxes during decomposition, *Oecologia*, 154:155-166

A8. Terrasi F., Rogalla D., De Cesare N., D'Onofrio A., Lubritto C., Marzaioli F., Passariello I., Rubino M., Sabbarese C., Casa G., Palmieri A., Gialanella L., Imbriani G., Roca V., Romano M., Sundquist M., Loger

M. (2007), A new AMS facility in Caserta/Italy. *Nuclear Instrument and Methods in Physics Research B*. 259 (1): 14-17

A7. Passariello, I., Marzaioli, F., Lubritto, C., Rubino, M., D'Onofrio A., De Cesare N., Borriello G., Casa G., Palmieri A., Rogalla D., Sabbarese C., Terrasi F. (2007) Radiocarbon sample preparation at the CIRCE AMS laboratory, in Caserta (Italy). *Radiocarbon*, 49 (2), 225-232

## 2006

A6. Scarabino, C. C. Lubritto, A. Proto, G. Fiengo, Rubino M., Fiengo G., Marzaioli F., Passariello I., Busiello G., Fortunato A., Alfano D., Sabbarese C., Rogalla D., De Cesare N., D'Onofrio A., Terrasi F. (2006) Paleodiet characterization of an Etrurian population (Pontecagnano, Salerno, Italy) by Isotope Ratio Mass Spectrometry (IRMS) and Atomic Absorption Spectrometry (AAS), *Isotopes in Environmental and Health Studies*, 42, 2: 151-158

A5. Bertolini T., Inghima I., Rubino M., Marzaioli F., Lubritto C., Subke A.J., Peressotti A., Cotrufo M.F. (2006), Sampling soil derived CO<sub>2</sub> for analysis of isotopic composition: a comparison of different techniques, *Isotopes in Environmental and Health Studies*, 42, 1: 1-9

A4. Liberloo M., Calfapietra C., Lucak M., Godbold D., Luo Z.B., Polle A., Hoosbeek M. R., Kull O., Marek M., Christine R., Rubino M., Taylor G., Scarascia-Mugnozza G., Ceulemans R. (2006) Woody biomass production during the second rotation of a bio-energy Populus plantation increases in a future high CO<sub>2</sub> world, *Global Change Biology*, 12: 1094-1106

A3. Marzaioli. F., Lubritto C., Battipaglia G., Passariello I., Rubino M., Rogalla D., Strumia S., Miglietta F., D'Onofrio A., Cotrufo M.F., Terrasi F. (2005) Reconstruction of past CO<sub>2</sub> concentration in a natural enriched site using radiocarbon dating. *Radiocarbon*, 47, 2: 257-263

A2. Bertolini T., Rubino M., Lubritto C., D'Onofrio A., Marzaioli F., Passariello I., Terrasi F. (2005) Optimized sample preparation for isotopic analyses of CO<sub>2</sub> in air: systematic study of precision and accuracy dependence on driving variables during CO<sub>2</sub> purification process. *Journal of Mass Spectrometry*, 40: 1104-1108

## 2004

A1. Lubritto, C. D. Rogalla, Rubino M., Marzaioli F., Passariello I., Romano M., Spadaccini G., Casa G., Di Leva A., De Cesare N., D'Onofrio A., Gialanella L., Imbriani G., Palmieri A., Roca V., Rolfs C., Sabbarese C., Strieder F., Schuermann D., Terrasi F. (2004) Accelerator mass spectrometry at the 4 MV Dynamitron Tandem in Bochum, *Nuclear Instruments and Method B*, 222: 255-260

## Peer- reviewed conference

B4. Lubritto, C. F. Terrasi, A. D'Onofrio, C. Sabbarese, F. Marzaioli, I. Passariello, A. Palmieri, G.Casa, D. Rogalla, Rubino M., Imbriani G., Romano M., Gialanella L., Roca V., Rolfs C., Giancaspro M., Travaglione A. (2008) Accelerator mass spectrometry dating of epicurus "De natura" papyrus from Herculaneum, Proceedings of the 4th Symposium of the Hellenic Society for Archaeometry, National Hellenic Research Foundation, Athens 28-31 May 2003

## **2006**

B3. Lubritto, C. Terrasi F., D'onofrio, Sabbarese, C. Marzaioli, F. Passariello, I. Rogalla, D. Rubino M., De Cesare N., Romano M., Gialanella L., Roca V., Rolfs C., Albore Livadie C., Vecchio G. (2006) Accelerator mass spectrometry dating of archaeological samples from Nola area (Naples, Campania, Italy), Proceedings of Archaeometry 2004, 34th International Symposium on Archaeometry, 3-7 May 2004, Zaragosa, Spain

B2. Terrasi, F. Rogalla, D. Lubritto, C Marzaioli, F. Passariello, I. Rubino, M., Battipaglia G., Casa G., Cotrufo M.F., D'Onofrio A., Palmieri A., Sabbarese C., Strumia S., De Cesare N., Gialanella L., Imbriani G., Roca V., Romano M., Miglietta F., Rolfs C., Albore Livadie C., Vecchio G. (2006) Dal primo sistema AMS in Italia al laboratorio CIRCE, Atti del Convegno A.I.Ar. (Associazione italiana di Archeometria), Caserta, 16-18 febbraio 2005: Innovazioni tecnologiche per i beni culturali in Italia, 9-18, Patron editore, Bologna

B1. Campana, S. Felici, C. Francovich, R. Marasco, L Lubritto, C. Passariello, I. Marzaioli, F. De Cesare, N. Rubino M., Borriello G., D'Onofrio A., Terrasi F. (2006), L'utilizzo delle datazioni al radiocarbonio nel sito archeologico di Pava, Atti del Convegno A.I.Ar. (Associazione italiana di Archeometria), Caserta, 16-18 febbraio 2005: Innovazioni tecnologiche per i beni culturali in Italia, 9-18, Patron editore, Bologna

### In preparazione/accettate

- C3 Fogwill, C.J. Turney, C.S.M. Menviel, L. Baker, A. Weber, M.E. Ellis, B. Thomas, Z.A. Golledge, N.R. Etheridge, D.M. Rubino, M. et al. Southern Ocean carbon sink enhanced by Last Glacial Termination seasonal sea-ice feedbacks, in preparation for Nature Communications
- C2. Rubino, M., D., Howden, R., Thornton, D., Trudinger, C. Allison, C., Steele, L.P., Langenfelds, R.L., Curran, M.A.J., Smith, A.M., Francey, R., Fraser, P., Etheridge, D., Revised atmospheric trace gases records over the last 2000 years, in preparation for *Climate of the Past*
- C2 Turney, C.S.M., Fogwill, C.J., Golledge, N.R., McKay, N., van Sebille, E., Jones, R.T., Etheridge, D., Rubino, M., Thornton, D.P., Davies, S.M., Thomas, Z., Bird, M., Munksgaard, N.C., Kohno, M., Woodward, J., Winter, K., Rootes, C.M., Millman, H., Rivera, A.N., van Ommen, T. Curran, M., Moy, A., Rahmstorf, S. Cooper, A., Sensitivity of antarctica to ocean warming during the last interglacial, in preparation for *Nature*