



# Università degli Studi di Messina

DIPARTIMENTO DI ECONOMIA

## CONSIGLIO DEL DIPARTIMENTO DI ECONOMIA

VERBALE n. 03/2024

L'anno **2024**, il giorno **29** del mese di **febbraio** alle ore **09:00** è stato convocato, con avviso del Direttore del 23/02/2024, e successivamente integrato con avviso del 27/02/2024, il Consiglio del Dipartimento di Economia, **in seduta allargata presso l'Aula Magna 1**, per discutere e deliberare sul seguente OdG:

- 1) Comunicazioni;
- 2) Approvazione riesame Scheda SUA-RD 2023;
- 3) Chiamata professori diretta dall'estero art. 1 comma 9 lex 240;

### I Ordine Aggiuntivo

- 4) Ratifica decreti;
- 5) Nulla osta afferenza altro Dipartimento.

Con l'intervento dei Sigg.ri:

1	Prof. Limosani	Michele	Presidente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
2	Prof. Abbate	Tindara	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
3	Prof. Albanesi	Rosa	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
4	Prof. Alibrandi	Angela	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
5	Prof. Ardizzone	Rita	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
6	Prof. Avena	Giuseppe	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
7	Prof. Baglieri	Daniela	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
8	Prof. Barilla	David	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
9	Prof. Barresi	Gustavo	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
10	Prof. Busetta	Giovanni	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
11	Prof. Calabrò	Grazia	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
12	Prof. Caltabiano	Marcantonio	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
13	Prof. Campolo	Maria Gabriella	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
14	Prof. Caratozzolo	Fabio	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
15	Prof. Caristi	Giuseppe	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
16	Prof. Centorrino	Giovanna	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
17	Prof. Cesaroni	Fabrizio	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
18	Prof. Cinici	Maria Cristina	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
19	Prof. Cirà	Andrea	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
20	Prof. Coppolino	Raffaella	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
21	Prof. Costa	Alessandra	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
22	Prof. Crisafulli	Carmelo	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
23	Prof. Crupi	Antonio	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
24	Prof. D'Agostino	Elena	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
25	Prof. D'Amico	Augusto	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>



# Università degli Studi di Messina

## DIPARTIMENTO DI ECONOMIA

26	Prof. De Domenico	Francesco	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
27	Prof. De Pascale	Angelina	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
28	Prof. Del Pozzo	Antonio	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
29	Prof. Di Pino Incognito	Antonino	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
30	Prof. Distaso	Walter	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
31	Prof. Donato	Maria Bernadette	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
32	Prof. Fabio	Rosa Angela	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
33	Prof. Forgione	Antonio Fabio	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
34	Prof. Gargano	Romana	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
35	Prof. Giannetto	Carlo	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
36	Prof. Gitto	Lara Nicoletta Angela	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
37	Prof. Grasso	Filippo	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
38	Prof. Grimaudo	Pierangelo	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
39	Prof. Guarneri	Roberto	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
40	Prof. Ingrao	Giuseppe	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
41	Prof. Iona	Alfonsina	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
42	Prof. Ioppolo	Giuseppe	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
43	Prof. Lacava	Demetrio	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
44	Prof. La Macchia	Angela	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
45	Prof. La Rocca	Elvira Tiziana	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
46	Prof. Lanfranchi	Maurizio	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
47	Prof. Lanuzza	Francesco	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
48	Prof. Lanza	Giuseppe	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
49	Prof. Leonida	Leone	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
50	Prof. Liotti	Giorgio	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
51	Prof. Maimone Ansaldo Patti	Dario	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
52	Prof. Marino	Alba	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
53	Prof. Marisca	Carmelo	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
54	Prof. Marozzo	Veronica	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
55	Prof. Martella	Melo	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
56	Prof. Melina	Anna Maria	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
57	Prof. Migliardo	Carlo	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
58	Prof. Milasi	Monica	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
59	Prof. Millemaci	Emanuele	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
60	Prof. Miralles Asensio	Antonio	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
61	Prof. Mondello	Giovanni	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
62	Prof. Monteforte	Fabio	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
63	Prof. Muzzupappa	Eleonora	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
64	Prof. Naciti	Valeria	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
65	Prof. Navarra	Pietro Maria	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
66	Prof. Noto	Guido	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>



# Università degli Studi di Messina

## DIPARTIMENTO DI ECONOMIA

67	Prof. Ofria	Ferdinando	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
68	Prof. Otranto	Edoardo	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
69	Prof. Pulejo	Luisa	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
70	Prof. Rappazzo	Nicola	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
71	Prof. Ricca	Bruno	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
72	Prof. Rupo	Daniela	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
73	Prof. Saija	Giuseppe	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
74	Prof. Salomone	Roberta	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
75	Prof. Schifilliti	Valeria	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
76	Prof. Schilirò	Daniele	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
77	Prof. Sergi	Sergio	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
78	Prof. Signorino	Guido	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
79	Prof. Spagnolo	Fabio	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
80	Prof. Staglianò	Raffaele	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
81	Prof. Trimarchi	Alessandra	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
82	Prof. Vadalà	Andrea	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
83	Prof. Vadalà	Velia	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
84	Prof. Verde	Melania	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
85	Prof. Vermiglio	Carlo	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
86	Prof. Zirilli	Agata	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
87	Dott. Maurotto	Marco	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
88	Dott. D'Agostino	Concetta	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
89	Sig. Barbara	Francesco Paolo	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
90	Dott. Bertolami	Fabio	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
91	Dott. Bongiorno	Alberto	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
92	Sig. Bongiovanni	Michele	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
93	Sig. Calabrò	Antongiulio	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
94	Sig. Crisafulli	Marco	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
95	Sig. Giummo	Paolo	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
96	Sig. Gullifa	Marco	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
97	Sig. Interdonato	Antonino	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
98	Dott. Inzollitto	Mariachiara	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
99	Sig.ra Isgrò	Valeria	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
100	Dott. Millemaci	Alessia	Componente	Presente <input type="checkbox"/>	Assente <input checked="" type="checkbox"/>
101	Sig.ra Pollicino	Tania	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
102	Sig.ra Pothupitiya Acharige	Shenal Wishmitha	Componente	Presente <input checked="" type="checkbox"/>	Assente <input checked="" type="checkbox"/>
103	Sig.ra Rizzo	Sharon	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>
104	Dott. Bottaro	Carlotta	Componente	Presente <input checked="" type="checkbox"/>	Assente <input type="checkbox"/>

Al prof. Distaso è stato concesso ai sensi dell'art.17 del D.P.R. 382/80 un periodo di congedo dall'1 gennaio 2024 al 31 dicembre 2024 (D.R. prot. n.111541 del 08/09/2023).



# Università degli Studi di Messina

## DIPARTIMENTO DI ECONOMIA

Sono assenti giustificati i proff. Alibrandi, Caltabiano, Caristi, D'Amico, La Rocca, Liotti, Marino, Marozzo, Migliardo, Pulejo, Schifilliti e Verde.

Presiede il Direttore, prof. Michele Limosani, svolge le funzioni di Segretario verbalizzante il dott. Marco Maurotto.

Constatata la validità della seduta, alle ore 09:00 si passa all'esame dell'O.d.G..

### Omissis

#### **3) Chiamata professori diretta dall'estero art. 1 comma 9 lex 240.**

Il Direttore riferisce di aver avuto richiesta da parte del Prof. Otranto di attivazione di una procedura per la chiamata diretta di uno studioso impegnato all'estero. Nello specifico, la professoressa Orietta Nicolis, attualmente "Full Professor" di Statistica presso l'Universidad Andres Bello, Santiago, Chile.

Il Direttore ricorda che la chiamata diretta per uno studioso impegnato all'estero è possibile ai sensi dell'art. 1 comma 9 della Legge 4/11/2005 n. 230, come modificato dalla Legge 9/1/2009, n. 1, e dalla legge 30/12/2010 n. 240; il quale recita: "Nell'ambito delle relative disponibilità di bilancio, le università possono procedere alla copertura di posti di professore ordinario e associato e di ricercatore mediante chiamata diretta di studiosi stabilmente impegnati all'estero in attività di ricerca o insegnamento a livello universitario da almeno un triennio, che ricoprono una posizione accademica equipollente in istituzioni universitarie o di ricerca estere [...]. A tali fini le università formulano specifiche proposte al Ministro dell'istruzione, dell'università e della ricerca, il quale concede o rifiuta il nulla osta alla nomina, previo parere di una commissione, nominata dal Consiglio universitario nazionale, composta da tre professori ordinari appartenenti al settore scientifico disciplinare in riferimento al quale è proposta la chiamata...".

Il Direttore ricorda, inoltre, che il Regolamento relativo alla chiamata di professori di prima e seconda fascia (D.R. n. 2009 del 22 luglio 2014), all'art. 15 prevede che "ciascun Dipartimento, previo parere favorevole del Senato Accademico, può proporre al Consiglio di Amministrazione la copertura di posti di professore ordinario, di professore associato e di ricercatore mediante chiamata diretta ai sensi dell'art. 1, comma 9, della legge n. 230/2005.

Il Direttore, infine, rammenta al Consiglio le linee guida per il reclutamento contenuto nel Piano Triennale della Ricerca, della Didattica e dei Servizi approvato da questo consiglio che sottolineano la "necessità di arricchire l'attività didattica e di ricerca del Dipartimento avvalendosi di studiosi provenienti da ambiti culturali ed accademici diversi da quello dell'ateneo Messinese".

Interviene il prof. Otranto che, in premessa, rinnova l'invito al Consiglio ad intervenire considerato che le discipline inerenti ai big data, alla data science e alla intelligenza artificiale ricoprono un ruolo strategico non solo per il Dipartimento ma soprattutto per l'intero ateneo. Il settore, inoltre, mostra evidenti esigenze didattiche come i recenti contratti a titolo oneroso banditi per l'anno accademico in corso rivelano. Il Prof. Otranto, quindi, passa ad illustrare la proposta di chiamata in dettaglio sul CV della prof.ssa Orietta Nicolis, sulla sua attuale posizione (**Allegati nn. 2, 3, 4**).

Dopo ampia e approfondita discussione il Consiglio di Dipartimento, considerato che la prof. Orietta Nicolis possiede qualificazione scientifica e didattica congrua al ruolo di Professore ordinario risultante dal curriculum allegato, esprime all'unanimità parere favorevole alla chiamata diretta, ai sensi dell'art. 1 comma 9 della Legge 4/11/2005 n. 230, come modificato dalla Legge 9/1/2009, n. 1 e dalla legge 30/12/2010 n. 240, in qualità di Professore di ruolo di I fascia per il settore scientifico disciplinare SECS-S/01 Statistica (settore concorsuale 13/D1 Statistica e metodi matematici per le decisioni).

**Il Consiglio approva all'unanimità.**

### Omissis



# Università degli Studi di Messina

DIPARTIMENTO DI ECONOMIA

Il presente verbale viene letto, approvato, sottoscritto seduta stante.  
La seduta si chiude alle ore 09:30.

Il Segretario verbalizzante  
F.to dott. Marco Maurotto

Il Direttore  
F.to Prof. Michele Limosani

È copia conforme all'originale  
Depositata agli atti del Dipartimento  
Messina, 064/03/2024  
Il Segretario amministrativo  
(Dott. Marco Maurotto)

# CURRICULUM VITÆ ET STUDIORUM

## ORIETTA NICOLIS

**Address:**

Calle Arenales, 131, Dept. 1503,  
Concón, Chile  
Teléfono (cell.): (+56) 9 65930797  
Ciudadanía: Italiana

**Work address:**

Facultad de Ingeniería  
Universidad Andrés Bello  
Calle Quillota 980,  
Viña del Mar, Chile  
E-mails: orietta.nicolis@unab.cl, nicolisorietta@gmail.com  
Web page: <https://researchers.unab.cl/es/persons/orietta-nicollis>

### Summary

Orietta Nicolis earned a degree in Economics with a specialization in mathematics and statistics in 1995 at the University of Verona, Italy. She obtained her PhD degree in Statistics applied to Economical and Social Sciences in 1999 at the University of Padua (Italy) and a postdoctoral fellowship in statistics at the University of Brescia (Italy) in the following two years. From 2002 to 2012, she has worked as Researcher and Aggregate Professor of Statistics at the University of Bergamo (Italy), in the Department of Information Technology and Mathematical Methods. At the same University she taught statistical courses for undergraduate and graduate students, supervised postgraduate thesis and was responsible for scientific research projects. From 2012 to 2018 she was working at University of Valparaiso as Associate and Full Professor.

From August 2014 to July 2018 she was Director of the PhD Program in Statistics of the University of Valparaiso, and since August 2018, she is Full Professor at the Engineering Faculty of the University Andres Bello en Viña del Mar (Chile) where she was director of the Master in Computation Sciences in the period 2019-2020 and she is currently part of the Master Comitee. In the year 2019 she obtained the Italian ASN (Abilitazione Scientifica Nazionale) for Full Professor by the Italian Ministry of Education, University and Research (according to the article 16, law 240, 2010).

She was responsible of different national ANID (National Research and Development Agency) projects on statistics, data science and artificial intelligence with applications to different fields. She is author /co-author of more than 70 scientific publications and reviewer of several international scientific journals, besides to be part of the ANID evaluation commission and co-editor of a scientific book and journals. Also, she participated to several national and international conferences as invited speaker.

She is Elected member of the International Statistical Institute (ISI) and a member of several other statistical societies. In the period 2017-2018 she was a member of the executive Commission of the National Statistical Chilean Society (SOCHE). From May 2023, she is the Director of PhD program in Engineering of Advanced Systems at the University Andres Bello, Chile.

Dr. Nicolis' research interests include the study of time series models, spatial and spatial-temporal models, point processes, machine learning methods, big data, computer science, artificial intelligence,

wavelet-transforms, fractional, and multifractal processes, with applications in different fields such as medicine, health, seismic events, air pollution, and geology.

## Positions

- 2018-(actual): Full Professor in the Department of Engineering Sciences, Faculty of Engineering, Universidad Andres Bello, Chile.
- 2018: Full Professor at the Department of Statistics, Faculty of Science, Universidad de Valparaiso, Chile.
- 2012-2017: Associate Professor at the Department of Statistics, Faculty of Science, Universidad de Valparaiso, Chile.
- 2005-2012: Researcher at the the Department of Information Technology and Mathematical Methods, Università degli Studi di Bergamo.
- From November 1, 2022: Director of the PhD program in Engineering of Advanced Systems, Universidad Andres Bello, Chile.
- From 2022: Director of the Laboratory of Data Science and Artificial Inteligence of the Transportation Center of the Universidad Andres Bello, Chile.
- 2019-2020: Director of the Master in Computer Science, Department of Engineering Sciences, Faculty of Engineering, Universidad Andres Bello, Chile.
- 2014-2018: Director of the PhD in Statistics, Department of Statistics, Faculty of Science, Universidad de Valparaiso, Chile.

## Education

- PhD in “Statistics applied to Economic and Social Sciences”, University of Padova, 1999. Thesis: “ Long memory time series for the analysis of the financial market”. Supervisors: Prof. Aride Mazzali and Prof. Mario Faliva.
- Master in Economics (July, 1997). Coripe Piemonte, Torino. Thesis: Disertation: “ Avoidable causes of Mortality in the ULSS of Veneto (1980 — ‘88): a case of Outcame evaluation”. Supervisor: Prof. G. Clerico.
- Degree in Economics, University of Verona, 1995. Thesis: “Modeling and prediction of economical phenomena using non-linear techniques: a new approach combining neural networks and singular spectrum analysis”. Supervisor: Prof. G.Tondini.

## Scholarships

- Scholarship in the Statistics for the project entitled “Statistical Control of Environmental Data”, University of Bergamo (September 2002-August 2004).
- Scholarship in Statistics for the project entitled “The refinement and application of some statistical techniques for the evaluation and verification of self-tests”, University of Verona, Italy. (September 2001 - August 2002).

## Awards

- December 2019: Award for one of the most relevance project. University Andres Bello
- January, 2023, Award for one of the most relevance outstanding researcher in Sustainable Objectives, University Andres Bello.

## Teaching

- March-July, 2024: Course *Information System and Data Intelligence* for the PhD program in Engineering of Advanced Systems, Universidad Andres Bello, Chile.
- March-July, 2024: Course *Data science for decision making* for the PhD program in Engineering of Advanced Systems, Universidad Andres Bello, Chile.
- March-July, 2024: Course *Fundamentals of data science* for the Master program in Computer Sciences, Universidad Andres Bello, Chile.
- March-July, 2023: Course *Information System and Data Intelligence* for the PhD program in Engineering of Advanced Systems, Universidad Andres Bello, Chile.
- March-July, 2023: Course *Research Methodology* for the PhD program in Engineering of Advanced Systems, Universidad Andres Bello, Chile.
- March-July, 2023: Course *Research Laboratory* for the Master program in Computer Sciences, Universidad Andres Bello, Chile.
- March-July, 2022: Course *Fundamentals of data science* for the Master program in Computer Sciences, Universidad Andres Bello, Chile.
- March-July, 2018, 2019, 2020, 2021: Courses of *BigData: Analisis de grandes bases de datos* for the to the Master program in Computer Sciences, Universidad Andres Bello, Chile.
- August-December, 2018, 2019, 2020: Courses of *Advanced bigData* and *Metodos Avanzados de Machine Learning* for the to the Master program in Computer Sciences, Universidad Andres Bello, Chile.
- March-July, 2014, 2015, 2016, 2017: Courses of *Research Laboratory I* and *Consultant I* for the to the PhD program in Statistics, Institute of Statistics , University of Valparaiso, Chile.
- August-December, 2013, 2014, 2015, 2016, 2017: : Courses of *Research Laboratory II* and *Consultant II* for the to the PhD program in Statistics, Institute of Statistics , University of Valparaiso, Chile.
- March-July, 2013, 2014, 2015, 2016: Course of *Time Series* for Undergraduate and graduate students for the following programs: Engineering in Statistics, Master in Statistics, and PhD in Statistics, University of Valparaiso, Chile.
- August-December, 2013: Course of *Spatial Statistics* for the following programs: Engineering in Statistics, Master in Statistics, and PhD in Statistics, University of Valparaiso.
- July-August, 2012: Course of *Geostatistical models for the environmental sciences*, University of Valparaiso, Chile.



- August-December, 2012: course *Time Series* for graduate students, University of Valparaiso, Chile.
- July- August, 2012: course of *Statistical modelling* for the PhD program in Statistics, University of Valparaiso, Chile.
- From 2000 to 2011: course *Matlab Laboratory*, University of Bergamo (IT).
- From 2000 to 2011: course *SStatistics and Probability*, University of Bergamo (IT).
- From 2006 to 2011: course of *Statistics Applied to the construction*, University of Bergamo, (IT).
- From 2007 to 2012: course of *Statistics and Probability* for the Master's program entitled *technology and processes for the textile industry*, University of Bergamo (IT).
- From 2005 to 2012: course of *Statistics and Probability* for the Master program in *Advanced Training in Industrial Facilities Management and Maintenance*, University of Bergamo and Politecnico of Milano (IT).
- From 2004 to 2006: tutorial activity for e-learning for the class in the University of Bergamo University (IT).
- From 2002 to 2006: course of *Statistics for financial prediction and Technology management*, for the doctoral program in *Economics and Industrial Technology Management*, University of Bergamo (IT).
- 1998/1999: course of *Statistics applied to economics*, University of Pavia (IT).
- 2000/2001: *Laboratory of Statistics*, University of Milano (IT).

## Publications (WoS)

1. Nicolis, O.; Maidana, J.P.; Contreras, F.; Leal, D. Analyzing the Impact of COVID-19 on Economic Sustainability: A Clustering Approach. *Sustainability* 2024, 16, 1525. <https://doi.org/10.3390/su16041525>
2. Orietta Nicolis, Luis Delgado, Billy Peralta, Mailiu Diaz, Marcello Chiodi (2024). Space-time clustering of seismic events in Chile using ST-DBSCAN-EV algorithm. Accepted in *Environmental and Ecological Statistics*.
3. E. Montero, O. Nicolis, S. Reid and M. Torres, "Multi-Objective Location Problem for Bank Branches," in *IEEE Access*, vol. 11, pp. 99977-99989, 2023, doi: 10.1109/ACCESS.2023.3315244.
4. Caamano-Carrillo, C.; Contreras-Espinoza, S.; Nicolis, O. (2023). Reconstructing the Quarterly Series of the Chilean Gross Domestic Product Using a State Space Approach. *Mathematics* 2023, 11, 1827. <https://doi.org/10.3390/math11081827>.
5. Saavedra-Nievas, J.C., Nicolis, O., Galea, M. (2023) Influence diagnostics in Gaussian spatial-temporal linear models with separable covariance. *Environ Ecol Stat*.
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### Publications (SCOPUS)

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55. Orietta Nicolis, Felipe Carrasco, Billy Peralta and Felipe Lopetegui (2022). Combining MRA y LSTM for predicting the sismicity in Chile. *2022 IEEE International Conference on Automation/XXV Congress of the Chilean Association of Automatic Control (ICA-ACCA)*.
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### Publications (other index)

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79. **Nicolis, O.**, Assunção, R. (2013). Spatio-temporal analysis of the avalanche hazard in the North of Italy. *Statistica*, Vol 73, No 1.

### Books and chapters of books

80. Said Gaci Olga Hachay Orietta Nicolis (2021). *Methods and Applications in Petroleum and Mineral Exploration and Engineering Geology* 1st Edition. Elsevier.
81. Gaci, S. and Nicolis, O. (2021) 13- Local regularity investigation of well logs from an Algerian tight reservoir (Chapter 13). In *Methods and Applications in Petroleum and Mineral Exploration and Engineering Geology*, (Editors: Said Gaci, Olga Hachay, Orietta Nicolis), Elsevier, 213–227. ISBN 9780323856171, <https://doi.org/10.1016/B978-0-323-85617-1.00005-9>.
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91. Derado, G., Lee, K., **Nicolis, O.**, Bowman, F. D., Newell, M. Ruggeri F. and Vidakovic, B. (2008) Wavelet-based 3-D Multifractal Spectrum with Applications in Breast MRI Images. In *Bioinformatics Research and Applications (Mandoiu, Sunderraman and Zelikovsky, eds.)*, *Lecture Notes in Computer Science*, Springer, 281-292.
92. **Nicolis O.**, (2002) Wavelets e reti neurali: analisi e previsione dell'ozono. In *Statistical Monitoring for Enviromental Engineering: Models and Applications to Bergamo county*, Edited by R. Colombi and A. Fassò, Bergamo University Press, Edizioni Sestante.
93. **Nicolis O.**, Fassò A. (2002) Air quality in Bergamo area: a statistical descriptive analysis of the last decade. In *Statistical Monitoring for Enviromental Engineering: Models and Applications to Bergamo county*, Edited by R. Colombi and A. Fassò, Bergamo University Press, Edizioni Sestante.
94. **Nicolis, O.**, Tondini, G. (2000) *Modellizzazione e previsione delle serie storiche con tecniche non lineari, un nuovo approccio combinando reti neurali ed analisi dello spettro singolare*, Libreria Universitaria Editrice, Verona.



## Talks and posters at conferences

- COMPSTAT 2022, Bologna, Italy, 23-26 August 2022.
- 2021 IEEE Chilean Conference on Electrical, Electronics Engineering, Information and Communication Technologies (CHILECON), December 6-9, 2021.
- 40th International Conference of the Chilean Computer Science Society (SCCC), 2021(Invited Speaker), Universidad de La Serena, Facultad de Ingeniería, La Serena, Chile. 15 al 19 de Noviembre de 2021 (Invited).
- XVI SEMBIOMAT (Seminario Internacional de Biomatemática), Peru. December 17-22, 2021 (Invited).
- INTERCON 2021 - XXVIII International Conference on Electronics, Electrical Engineering and Computing. August 5 to 7, 2021
- EGU General Assembly 2021 Conference, 19–30 April 2021.
- Conference on Information Technology and Data Science, CITDS 2020, Debrecen, Hungary, November 6–8, 2020. Online Conference.
- International Conference of the Chilean Computer Science Society (SCCC), November 16 – 20, 2020
- CHILECON 2019 : IEEE CHILEAN Conference on Electrical, Electronics Engineering, Information and Communication Technologies. Valparaiso, Oct 29, 2019 - Oct 31, 2019.
- A spatio-temporal approach for assessing environmental risks. Workshop: Stochastic dependence and related topics on the occasion of 70th Birthday of Professor Jerzy Filus, Universidad de Valparaiso, 19th October 2017. University of Valparaíso, Chile
- Modelos espacio-temporales para la evaluación de riesgos ambientales. Jornadas Nacionales de Estadística 2017 (JNE 2017) - 16, 17 y 18 de Octubre - Universidad de Playa Ancha, Chile.
- A spatio-temporal approach for assessing environmental risks. XXXII Foro Nacional de Estadística, September 27-29, UNAM, Ciudad de Mexico, Mexico.
- Spatio-temporal modeling for predicting wind speed and direction on the coast of Valparaiso. 27th Annual conference of The International Econometrics Society and GRASPA 2017 on Climate and Environment, 24-26 July 2017, Bergamo, Italy.
- Spatio-temporal modeling for predicting wind speed and direction on the coast of Valparaiso. 27th Annual conference of The International Econometrics Society and GRASPA 2017 on Climate and Environment, 24-26 July 2017, Bergamo, Italy.
- Spatio-temporal modelling for estimating air pollution exposure in Santiago de Chile. 61ST WORLD STATISTICS CONGRESS, 16-21 JULY 2017, MARRAKECH, Marruecos.
- Space-time forecasting of seismic events in Chile, The 10th International Workshop on Statistical Seismology (StatSei10), Wellington, New Zealand, February, 20-24, 2017.
- Ciclo de conferencias sobre Anàlisis Espacial, Lima, Perú, October, 20-21, 2016.

- Spatio-temporal modelling for assessing air pollution in Santiago de Chile. *ICNPAA 2016* La Rochelle France, July, 5-8, 2016.
- Windowed ETAS models with application to the Chilean seismic catalogs. *SPATIAL*, Avignon, Francia, June, 9-12, 2015.
- Environmental SmartCities: statistical mapping of environmental risk for natural and anthropic disasters in Chile, *GRASPA*, Bari, Italia, 15-16, 2015
- A spatio-temporal approach for assessing the environmental risks in Chile. *VI SEEMI-VI Simposio en Estadística Espacial y Modelamiento de Imágenes*, Toledo, Brasil, December, 16-18, 2015.
- Comparison of spatio temporal models for the prediction of air pollution in Santiago de Chile. *JNE2015:XLII Jornadas Nacionales de Estadística*, Concepción, Chile, October, 14-16, 2015.
- Anisotropic kernels for the estimation of space-time ETAS models. *StatSei9*, Potsdam, Alemania, 14-18 Junio, 2015.
- Multivariate spatio-temporal interpolation of PM2.5 and its impact on respiratory diseases. *Satellite workshop of the IBC2014 on Spatio-Temporal Statistics*, Valencia, España, July, 13-14, 2014.
- Reduced rank spatial covariance: a multiresolution approach. *Pan-American Advanced Study Institute on Spatio-temporal Modeling*, Buzios, Brasil, June, 16-26, 2014.
- Modelos geoestadísticos para el analysis de los datos ambientales. *Ministerio del Medio Ambiente*, February, 12, 2014.
- Métodos estadísticos para la evaluación del riesgo sísmico en Chile. *Jornadas Nacionales de Estadística XL JNE*, October, 23-25, 2013, University of Valparaiso, Chile.
- Spatial Statistics methods and aplicaciones. *Jornadas Nacionales de Estadística XL JNE*, October, 23-25, 2013, University of Valparaiso, Chile.
- Desarrollo y Visualización de Mapas de Riesgo Ambiental. *SEEMI2013, V Simposio en Estadística Espacial y Modelamiento de Imágenes*, Cordoba, December, 11-13, 2013. Córdoba, Argentina.
- Spatio-temporal analysis of earthquake occurrences using a multiresolution approach. *15th Conference IAMG 2013*, Complutense University of Madrid (Spain), September 2nd – 6th, 2013.
- A robust method for estimating the multifractal wavelet spectrum in geophysical images. *European Geosciences Union General Assembly 2013*, Vienna, Austria, Abril, 7-12, 2013.
- Modelos espacio temporales para las aplicaciones ambientales. *CIMFAV*, June, 5, 2013.
- Desarrollo y Visualización de Mapas de Riesgo Ambiental. *Jornada DIUV*, 25 de Abril, 2013. Hotel O'Higgins, Valparaiso, Chile.
- NASA-Training on Remote Sensing Data Usage in Air Quality Assessments. October, 18-19, 2012, Chapel Hill, North Carolina.

- Mammogram diagnostics via 2-d complex wavelet-based self-similarity measures. *SIMAI Conference*, June 25, 2012 - June 28, 2012.
- A Multiresolution approach for the analysis of environmental spatial data. *Rodada de seminários pré-IBC (XXVth International Biometric Conference (IBC-Floripa-2010), LEG: Laboratório de Estatística e Geoinformação, Centro Politécnico - Jardim das Américas, Curitiba (Paraná), Dezembro 3, 2010.*
- Spatial modeling and classification of images using wavelets. *using wavelets. Terceiro Simpósio em Estatística Espacial e Modelagem de Imagens III - SEEMI, December 14, 15 and 16, 2010.*
- Testing for anisotropy in spatial point processes. Fifth International Workshop on Spatio-Temporal Modelling (METMA5). Santiago de Compostela (Spain), June 30 - July 2, 2010.
- Reduced rank covariances for the analysis of environmental data. Scientific Meetings of SIS, Statistical Methods for the analysis of large data-sets, University G. d'Annunzio - Chieti-Pescara September 23, 2009 - September 25, 2009.
- A unified framework of fractal and wavelet random fields. TIES 2009 - the 20th Annual Conference of The International Environmetrics Society, a Section of the ISI and GRASPA Conference 2009, Bologna, Italy July 5-9, 2009.
- Wavelet-based analysis of the spatial structure of point patterns. TIES 2009 - the 20th Annual Conference of The International Environmetrics Society, a Section of the ISI and GRASPA Conference 2009, Bologna, Italy July 5-9, 2009.
- Integrating satellite and ground level data for air quality monitoring and dynamical mapping (poster). TIES 2009 - the 20th Annual Conference of The International Environmetrics Society, a Section of the ISI and GRASPA Conference 2009, Bologna, Italy July 5-9, 2009.
- AOT calibration by spatio-temporal model in Northern Italy (poster). International Workshop on Spatio-Temporal Modelling (METMA4), Alghero, Sardegna (Italia), 24, 25 e 26 Settembre 2008.
- *Beyond Fourier analysis: a short introduction to wavelets*, seminar at University of Padoa, Dept. of Statistical Sciences, October 17, 2008.
- Estimation of the Hurst parameter isotropic and anisotropic random fields. *GRASPA CONFERENCE 2008 Intermediate Meeting of GRASPA-PRIN 2006-2008 on Environmental Statistics Siena, 27 and 28 March 2008*
- Modellizzazione spazio-temporale del PM<sub>10</sub> in Piemonte: covarianze spazio-temporali non separabili. *Workshop intermedio del progetto di ricerca: Metodi statistici e modelli spazio-temporali per il monitoraggio dell'inquinamento atmosferico*, Torino, December 18, 2007.
- 2-D Wavelet-Based Spectra for the analysis of anisotropic spatial processes. *L'interdisciplinarietà nelle problematiche ambientali: analisi dei contributi di tre Progetti PRIN2004*, Lecce, April, 19 - 20 2007.
- 2-D Wavelet-Based Spectra Analysis for the Classification of Geophysical Images (Poster). *Italian Statistical Society: Intermediate Workshop*, Venezia, June 6-8, 2007

- A spatio-temporal model for particulate matter monitored from a heterogeneous network (Poster). *ISBA Eighth World Meeting on Bayesian Statistics*, Benidorm (Alicante, Spain), June 1st to June 6th, 2006
- Spatio-temporal Modelling with Exogenous Variables for PM<sub>10</sub> in Piemonte (Poster). *Multivariate Methods in Environmetrics*, October 26 - 28, 2006, Chicago, Illinois.
- On long memory dependence for some stochastic models. *Spatial Data Methods for Environmental and Ecological Processes*, Foggia, Italy 14 September 2006.
- Spatio-temporal modelling with exogenous variables for PM<sub>10</sub> in Piemonte. *International Workshop on Spatio-Temporal Modelling (METMA3)*, Pamplona, (Spain) 27-29 September 2006.
- Decoupling of local and global behaviour for the Dagum Random Field and related models. *International Workshop on Spatio-Temporal Modelling (METMA3)*, Pamplona, (Spain) 27-29 September 2006.
- A spatio-temporal model for particulate matter monitored from a heterogeneous network. *International Workshop on Spatio-Temporal Modelling (METMA3)*, Pamplona, (Spain) 27-29 September 2006.
- Spatio-temporal modelling with exogenous variables for PM<sub>10</sub> in Piemonte. *Italian Statistical Society, XLIII Scientific Meeting*, Torino, 14-16 June 2006.
- *Space-time integration of heterogeneous networks in air quality monitoring*. Italian Statistical Society Conference on Statistica e Ambiente, Messina, 21-23 September 2005.
- *On long memory dependence for some stochastic models*. Spatial Data Methods for Environmental and Ecological Processes, Processes Foggia, Italy 14 September 2006.
- *A dynamical space-time calibration model for the airborne particular matter data*. S.Co. Conference, Bressanone, September 15-17, 2005.
- *Modelling and reducing uncertainty of field monitoring data in geomechanics by computerized statistical methods*. 11th IACMAG Conference in Torino, 19-24 June 2005 11th IACMAG Conference in Torino, 19-24 June 2005.
- *Space-time integration of heterogeneous networks in air quality monitoring*, GRASPA Conference 2005, Bertinoro, April 21-23 2003.
- *Modeling Particulate Matter Data in Milan Monitoring Network*, XLII Riunione Scientifica, Bari, June 9 - 11, 2004.
- *Analisi preliminare della dinamica spazio-temporale delle polveri fini in nord Italia*, Dalmine (BG), February, 5 - 7, 2004.
- *Analisi e previsione dell'inquinamento dell'aria nella provincia di Bergamo* (January 27, 2003), Dipartimento di Scienze Economiche, Verona.
- *Comparing conditional variance models: Theory and Empirical Evidence* (July 2, 2002), Multi-national Finance Society, Cyprus.

- *Using wavelets for decomposing and forecasting air pollution time series* (June 19, 2002), The International Environmetrics Society (TIES), Genoa.
- *Air quality in last decade for Bergamo area: statistical evidence and wavelets* (January 14, 2002), Engineering Faculty, University of Bergamo.
- *Detection of Asymmetry and Estimation of Discrete-Time Stochastic Volatility Models for some Asset Returns* (May 26, 2001), Multinational Finance Society, Garda (Italy).
- *Nonparametric estimation of conditional mean and variance with Local polynomials*, Italian Statistical Society, XL Scientific Meeting Scientifica, Firenze, April 28, 2000.
- *Long memory estimation in financial time series by wavelet transform* (24 agosto 1999), Department of Biometrics and Artificial Intelligence, INRA, Marley-le-Roy, France.
- *Modelli lineari e non con tecniche wavelets e reti neurali* ( 28 of January 1998), International School of Advanced Studies (SISSA), Trieste.

### **Visiting and International collaborations**

- July, from 2016 to 2021: Università di Palermo, Italia (Italy).
- June – Julio, 2015-2019: CNR-IMATI Consiglio Nazionale di Ricerca, Milano (Italy).
- 15–24 September 2014: CNR-IMATI Consiglio Nazionale di Ricerca, Milano (Italy).
- October 27–November 15, 2013: Department of Biomedical Engineering, GaTech, Atlanta (USA).
- September, 26–October 18, 2007, November 26–December 14, 2007, October 2010: Department of Biomedical Engineering, GaTech, Atlanta (USA).
- September -December 2011: Department of Biomedical Engineering, GaTech, Atlanta (USA) (Prof. Brani Vidakovich).
- November -December, 2010: Universidade Federal de Minas Gerais, Belo Horizonte, Brazil (Prof. Renato Assuncao).
- September -December, 2009: SAMSI2009, Space-time Analysis in Environmental Mapping, Epidemiology and Climate Change, Durham, NC..
- June, 2009: Department of Geography San Diego State University, San Diego (USA).
- February, 2009 and June, 2009: Departamento de Matemticas Area de Estadística e Investigacin Operativa, Universitat Jaume, Castellon, Spain.
- January 23-31, 2009: Department of Geography San Diego State University, San Diego.
- June, 2009: Department of Geography San Diego State University, San Diego (USA).
- June, 2009: Departamento de Matemticas Area de Estadística e Investigacin Operativa, Universitat Jaume, Castellon, Spain.
- January 12-22, 2009: Department of Biomedical Engineering, GaTech, Atlanta (USA).

- November-December, 2008: NCAR (National Center of Atmospheric Research), Boulder.
- September–October, 2007, November 26–December 14, 2007, October 2010: Department of Biomedical Engineering, GaTech, Atlanta (USA).
- October -November, 2006: Department of Biomedical Engineering, GaTech, Atlanta. -
- July 2006: Departamento de Matemáticas Area de Estadística e Investigación Operativa, Universitat Jaume, Castellon, Spain.
- December 2005–January 2006: School of Mathematics, University of Southampton, Highfield, SO17 1BJ, UK.

### Reviewer’s activity and member of society

- \* Reviewer for the following journals: *Environmetrics*, *Journal of Agricultural, Biological and Environmental Statistics*, *Multinational Finance Journal* *Managerial Finance*, *Journal of Statistical Computation and Simulation*, *Stochastic Environmental Research and Risk Assessment (SERRA)*, *Computational Statistics and Data Analysis*, *Environmental*, *International Journal of Nonlinear Sciences and Numerical Simulation (IJNSNS)*, *Hydrology Research*, *Fractal and Fractional*, *Frontiers in Earth Science*, *Scientific Reports*, and *Nonlinear Processes in Geophysics*.
- \* Member of the *Italian Statistical Society*, *International Environmetrics Society*, *Natural Hazard*, *International Biometric Society*, GRASPA (*Gruppo di Ricerca per le Applicazioni della Statistica ai Problemi Ambientali*), and SOCHE (Sociedad Chilena de Estadística).
- \* Guest Editor of the Special Issue “Statistical Methods in the Mining Industry”, of ASMBI (Applied Stochastic Models in Business and Industry) journal.

### National and International Projects

- 2024-2027, Fondecyt Grant: ”Spatio-temporal adaptive transfer learning for earthquake prediction using multiple precursors” (Responsible Researcher), funded by the Chilean National Agency for Research and Development (ANID).
- 2020-2024, Fondecyt Grant ID1201478: ”A multiresolution approach for the analysis and prediction of earthquakes: from ETAS model to Deep Learning techniques” (Responsible Researcher), funded by Chilean National Agency for Research and Development (ANID).
- 2023-2033: FONDAP 152220002 ”Center for cancer prevention and control (CECAN)” (Associate Researcher), funded by Chilean National Agency for Research and Development (ANID).
- Fondef IDEA I+ D, ID19I10356: ”Intelligent System for the Tele-Rehabilitation of cardiovascular patients.” (Director and Responsible Researcher), funded by Chilean National Agency for Research and Development (ANID).
- 2018-2024: FONDAP project 1522A0005 ”Research Center for Integrated Disaster Risk Management (CIGIDEN),” (Associate Researcher), funded by Chilean National Agency for Research and Development (ANID).

- FIC2018 "Fractal techniques for mining exploration in the metropolitan region". Proyecto FIC2017-Gobierno Regional de la Region Metropolitana (Responsible Researcher).
- 2013-2016, Fondecyt Grant ID1131147 : "Spatio-temporal models for the analisis of air pollution and earthquakes" (Responsible Researcher), funded by Chilean National Agency for Research and Development (ANID).
- From 2008 to 2011, responsible of the following scientific projects with firms:
  1. "An analysis of the rain pattern for design". Dakota firm, Verona, ITALY.
  2. "Statistical analysis of thermal insulation systems for buildings". Dovaro firm, Verona, ITALY.
- 2011-2012, EN17 Project: "Methods for Integrating Renewable Energy Resources and Satellite Monitoring for Environmental Impacts ", University of Bergamo, Italy (Co-researcher).

### Supervision of postgraduate theses

1. 2024 *Spatio-temporal grouping of seismic events in Chile through the use of clustering algorithms based on density and classification of seismic events using neural networks*. Student: Luis Delgado (Supervisor: Orietta Nicolis). Master in Computer Science, Universidad Andres Bello. Chile, March, 2024.
2. 2024 *Agile framework to measure, evaluate and develop intelligence-based systems artificial explainable user-centered*. Student: Denise de Los Angeles, Ramirez. (Supervisor: Orietta Nicolis). Master in Computer Science, Universidad Andres Bello. Chile, March, 2024.
3. 2024 *Agile framework to measure, evaluate and develop intelligence-based systems artificial explainable user-centered*. Student: Denise de Los Angeles, Ramirez. (Supervisor: Orietta Nicolis). Master in Computer Science, Universidad Andres Bello. Chile, March, 2024.
4. 2022 *Prospection of minerals with supervised classification based on textures and dimensions fractal images multi-spectral satellites*. Student: Cristian Alex Gonzalez Herrera. (Supervisor: Orietta Nicolis). Master in Computer Science, Universidad Andres Bello. Chile, July, 2022.
5. 2021 *Redes Neuronales ConvLSTM for the prediction of seismic events in Chile*. Student: Alex Gonzalez (Supervisor: Orietta Nicolis). Master in Computer Science, Universidad Andres Bello. Chile, July, 2022.
6. 2021 *Methods for selecting optimal variables for prediction of cardiovascular diseases using machine learning*. Student: Mauricio Rodriguez (Supervisor: Orietta Nicolis). Master in Computer Science, Universidad Andres Bello. Chile, January, 2021.
7. 2021 *Spatio-temporal neural networks for prediction of crime events*. Student: Nicolas Esquivel (Supervisor: Orietta Nicolis). Master in Computer Science, Universidad Andres Bello. Chile, January, 2021.
8. 2021 *Detection and location of earthquakes through analysis of Twitter data*. Students: Felipe A. Castillo Ducaud and Sergio E. Inostroza Negrete (Supervisor: Orietta Nicolis). Master in Information Technology and Telecommunications Management, Universidad Andres Bello. Chile, January, 2020.

9. 2019 *Statistical calibration of temperature and wind speed forecasts in the central area of Chile*. Student: Mailiu Diaz (Co- Supervisor: Orietta Nicolis). PhD program in Statistics, University of Valparaiso, Chile, 2019.
10. 2018 *Small area estimation based on Birnbaum–Saunders models*. Student: Marcelo Alejandro Rodríguez Gallardo (Supervisor: Orietta Nicolis, co-supervisor: Victor Leiva). PhD program in Statistics, University of Valparaiso. Chile, December, 2017.
11. 2018 *Proceso de Cox Temporal con Proceso de Intensidad Folded-Normal*. Student: Luis Mario Riquelme Quezada (Supervisor: Orietta Nicolis). PhD program in Statistics, University of Valparaiso. Chile, Agosto 2018.
12. 2021: *Influence Diagnostics in Spatial and Spatio-Temporal linear model*. Student: Juan Carlos Saavedra-Nievas. (Supervisor: German Ibacache. Co-supervised: Orietta Nicolis and Manuel Galea Rojas), PhD program in Statistics, University of Valparaiso. Chile.
13. 2016: *Methodology to predict nominal fishing effort of the hedgehog (*Loxechinus albus*) in the X and XI Region using a geostatistical spatio - temporal model*. Student: Joaquin Cavieres Gaete. T (Supervisor: Orietta Nicolis), Master thesis in Statistics, 2016, University of Valparaiso. Chile.
14. 2016: *Geostatistical analysis of air pollution data in Santiago, Chile, using SPDE with INLA estimation method*. Student: Eduardo Puraivan H. (Supervisor: Orietta Nicolis), Master thesis, 2016, University of Valparaiso. Chile.
15. 2015: *Spatio-temporal interpolation for the estimation of missing values in PM2.5 data and their impact on health*. Student: Lina Marcela Aristizábal Soto ( Supervisor: Orietta Nicolis), Master thesis in Statistics, 2015, University of Valparaiso. Chile.
16. 2015: *Extreme Value Birnbaum-Saunders distribution: regression models and L-moments* . Student: Camilo Lillo (Supervisors: Orietta Nicolis and Victor Leiva), Master thesis in Statistics, University of Valparaiso. Chile.
17. 2006: *Field characterization, statistical analysis and classification tools for geodetic monitoring*. Master thesis in Civil Engineering , Universidad of Bergamo (Students: Luca Gherardi and Carlo Piantoni). Supervisor: Orietta Nicolis.
18. 2008: *The analysis of precipitation in the Lombardy region and the design of drainage systems*, Master thesis in Civil Engineering, Universidad of Bergamo (Student: Lorenzo Piccirillo). Supervisor: Orietta Nicolis.
19. 2009: *Definition of a methodology to evaluate the environmental performance of isolation systems*. Master thesis in Civil Engineering, University of Bergamo (Student: David Calegari). Supervisor: Orietta Nicolis.
20. 2011: *The reduction of the scale of the rainfall data in the north of Italy through a model of precipitation disintegration*: Master thesis in Civil Engineering, University of Bergamo (Student: Dario Plebani). Supervisor: Orietta Nicolis.

## Supervision of undergraduate theses



1. 2021: *Análisis y predicción de series de precios del mercado financiero, implementando estrategias de inversión con algoritmos de machine learning*. Tesis en Ingeniería Civil Industrial, Facultad de Ingeniería, Universidad Andres Bello (Supervisor: Orietta Nicolis).
2. 2020: *Propuesta de un modelo para estimar el impacto económico provocado por desastres naturales en la zona central de Chile* Tesis en Ingeniería Civil Industrial, Facultad de Ingeniería, Universidad Andres Bello (Supervisor: Orietta Nicolis).
3. 2017: *Modelo de redes neuronales para la predicción de la calidad del aire (O<sub>3</sub>) en la Región Metropolitana de Santiago*. Tesis en Ingeniería Estadística, Universidad de Valparaíso (Supervisor: Orietta Nicolis).
4. 2016: *Model for cyclical time series estimated under the domain of time and frequency with application in ozone contaminant*. Student: Jesus Ibacache (Guide: Orietta Nicolis), Thesis of Undergraduate, University of Valparaíso, career of Statistical Engineering, 2016.
5. 2015: *Designing an air pollution (PM<sub>2.5</sub>) model for the Metropolitan Region*. Alumna: Marcela Paz Azócar Pizarro (Guide: Orietta Nicolis), Thesis of Undergraduate, career of Statistical Engineering 2015.
6. 2013: *Statistical methods for the evaluation of seismic risk..* Student: Daniela Francisca Hellman Rodríguez, University of Valparaíso, career in Engineering and Statistics, Chile.
7. 2013: *Application of geostatistical and diagnostic techniques for the analysis of air quality in the city of Santiago*. Tesista: Cristobal Eduardo Roco Saavedra, degree in Engineering from the University of Valparaíso, Chile.

## Other activities

- Member of the Scientific Comitee of the Ciudades Resilientes – Conferencia Internacional 2021, December 1-2, 2021.
- Organizer and member of the Scientific Comitee of the III International Workshop on Data Science, November 27, 2018.
- Reviewer of ANID projects: Fondecyt, Fondef and post-graduate grants.
- Director of the PhD program in Statistics (since August 2014 to July 2018).
- Principal Investigator of the Interdisciplinary Center for Atmospheric and Astro Statistical Studies, University of Valparaíso.
- Associate editor of the special issue “Statistical Methods in Mining Industry” (ASMBI).
- Organizer of the course “Bayesian Modeling and Hierarchical Modeling of Spatial Data” taught by Prof. Sujit Sahu, Institute of Statistics, Faculty of Sciences, University of Valparaíso (Chile), March, 3-4, 2016.
- President of the Scientific Committee of the Congress *JNE2015: XLII National Conference on Statistics*, Concepcion, Chile, 14-16 October, 2015.

- Member of the Local and Scientific Committee of the 2nd Conference of Scientific Initiation, Institute of Statistics, Faculty of Sciences, University of Valparaíso (Chile), from September 2 to 4, 2015.
- Member of the Local and Scientific Committee of the 1st Workshop on Scientific Initiation, Institute of Statistics, Faculty of Sciences, University of Valparaíso (Chile), from August 20 to 22, 2014
- Session Co-organizer: Time Series Analysis and Empirical Mode Decomposition in the Geosciences - Concepts, Methods and Applications, EGU2014, European Geosciences Union General Assembly 2014, Vienna, Austria, April 27-May 2, 2013.
- Workshop organizer: “Geostatistics: Applications, perspectives and future developments”, University of Valparaiso, Valparaiso, Chile, October 11, 2013.
- Session co-organizer: Stochastic Approaches for Multiscale Modeling in Geosciences”, EGU2013, European Geosciences Union General Assembly 2013, Vienna, Austria, April, 7-12, 2013.
- Member of the Organizer Committee of the conference: “TIES2009 - the 20th Annual Conference of The International Environmetrics Society ”, Bologna, Italy July 5-9, 2009.

Viña del Mar (Chile), February 20th, 2024

Orietta Nicolis



## Certificate

Santiago, Universidad Andres Bello Id:71540100-2, located on 252 Republica Street, certifies that the contract of Miss/Mr Orietta . Nicolis . Id: 24.074.986-6, is active and permanent as DIRECTOR(A) DOCTORADO EN ING DE SIST AVA.

His contract is in force since 1 de agosto de 2018, and her working day are 45 hours for week

This certificate is to be used by the petitioner for any purposes at his or her convenience.

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**Pilar Olguin Vera**  
**Head Of Human Resources**

En Santiago, a 04-03-2024



CJ 24-18

**DEFINE JERARQUÍA  
ACADÉMICA DE ACADÉMICOS  
DE LA FACULTAD  
DE INGENIERÍA**

Santiago, noviembre 20 de 2018

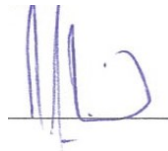
**TENIENDO PRESENTE:**

- i) Que se han cumplido las etapas del Proceso de Jerarquización Académica prescritas en el Decreto Universitario N°2420-2017 que fija el Reglamento de Jerarquización Académica de la Universidad Andrés Bello;
- ii) y considerando la evaluación de los antecedentes proporcionados por el (la) académico(a) por parte de la Comisión de Jerarquización Académica de la Facultad de Ingeniería.

**RESOLUCIÓN**

1. Comuníquese a la Académica Dra. ORIETTA NICOLIS, Rut 24.074.986-6 de la Facultad de Ingeniería que, como resultado del proceso de evaluación de sus antecedentes por parte de esta Comisión, ha sido propuesto jerarquizarla en la categoría de **Profesora Titular**.
2. De acuerdo con la reglamentación vigente, esta proposición se hace llegar a la Comisión Central de Jerarquización de la UNAB la que la acepta o rechaza fundadamente.

Notifíquese y comuníquese



Roberto Abeliuk Rimsky  
Secretario Comisión de Jerarquización Académica  
Facultad de Ingeniería