

Curriculum Vitae et Studiorum

PERSONAL DATA

Name **BOCCALETTI STEFANO**

Address **RESIDENT: VIA DEL PIANEROTTOLO 9, 50135, FIRENZE, ITALIA**
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Google Scholar Profile https://scholar.google.it/citations?view_op=search_authors&mauthors=boccaletti+s&hl=it&oi=ao

Nationality ITALIAN

DEGREES

8 June 1992 - MD in Physics with votation 110/110 cum Laude.

Dissertation defended: "Theory of spatiotemporal complexity in nonlinear optics"

1992/95 - PhD course in Physics at the University of Florence

21 October 1996 - PhD in Physics at the University of Florence.

Dissertation defended: "Pattern formation, selection and competition in extended media".

30 January 2015 - PhD *honoris causa* at the University Rey Juan Carlos of Madrid.

PROFESSIONAL ACTIVITY

January 1998 - September 1998 - Associate Professor at the Department of Physics and Applied Mathematics of the University of Navarre (Pamplona, Spain).

October 1998 - Winner of the "Marie Curie" EU Personal Fellowship n. ERBFMBICT983466 (Fifth Framework of the EU, formed equivalent of the actual ERC starting grant). Title: "Control and synchronization of spatiotemporal chaos in fluids". Research activity at the Department of Physics and Applied Mathematics of the University of Navarre (Pamplona, Spain).

October 1998 – February 2001 - Visiting Professor at the Department of Physics and Applied Mathematics of the University of Navarre (Pamplona, Spain).

March 2001 – 2005 – Permanent researcher at the National Institute of Applied Optics (Florence, Italy).

2005- 2006 - Permanent researcher at the Institute of Complex Systems of the CNR (Florence, Italy).

2006 – present - Visiting Scientist of the Weizmann Institute of Science, Rehovot Israel.

2007 – present - Honorary Professor at the Tel Aviv University, Tel Aviv, Israel.

January 2007 – March 2011 – Permanent senior researcher at the Institute of Complex Systems of the CNR (Florence, Italy).

January 2007 – January 2011 – Scientific Attaché of the Italian Embassy in Israel (Tel Aviv, Israel).

April 2011- December 2012 – ISAAC PERAL Chair of Computational Systems Biology at the CTB (Center of Biomedical Technology) of the Technical University of Madrid (Madrid, Spain).

January 2013 – present – Permanent senior researcher at the Institute of Complex Systems of the CNR (Florence, Italy).

April 2014 – April 2018 - Scientific Attaché of the Italian Embassy in Israel (Tel Aviv, Israel).

May 2018 - present Honorary Professor at the Northwestern Polytechnical University, Xi'an, China

BIOMETRIC DATA

Number of publications on international peer-reviewed Journals: 332 (among which 9 Physics Reports, 32 Physical Review Letters, 55 Physical Review E, 8 Nature Scientific Reports, 1 Science Advances, 1 PNAS)

Total number of citations received: 21,566 (Google Scholar)

H factor : 54 (Google Scholar)

i-10 index: 167 (Google Scholar).

TECHNICAL EXPERTISE

Italian mother-tongue.

Excellent knowledge of the English language (written and spoken).

Excellent knowledge of the Spanish language (written and spoken).

Good knowledge of the French language (written and spoken).
Programmer in Fortran e Matlab.

RESEARCH EXPERIENCE

Dr. Stefano Boccaletti graduated in Physics summa cum laude at the University of Florence in June 1992 presenting a research thesis regarding the study of complexity in nonlinear optics. Subsequent researches on morphogenesis in extended media were completed as a PhD thesis, which was awarded in 1995.

His major research lines regarded the theoretical modelling of pattern formation and competition in nonlinear active and passive optics, in excitable media, the study of adaptive strategies for chaos recognition, control and synchronization, the theoretical discussion of quantum classical correspondence for classically chaotic systems, the study of synchronization in spatially extended systems and in complex networks.

He has co-authored the first experimental evidence of bulk-boundary transition in pattern formation in nonlinear active optics, and the first experimental evidence of domain coexistence in two-dimensional pattern formation in passive optics.

He has also introduced a new adaptive technique for chaos recognition and control, which has been successfully applied for chaos targeting, filtering noise from chaotic data sets, and chaos synchronization, both theoretically and experimentally. The control algorithm has been extended to infinite dimensional systems (delayed dynamical systems) for the control of defects and space-like structures in amplitude turbulent regimes, and also to space extended systems for the control of turbulent states.

Boccaletti co-authored the first direct experimental evidence of control of complex two-dimensional patterns in nonlinear passive optics.

From 1998, Boccaletti has also studied experimental control and synchronization of chaos in fluid dynamics, with reference to a Bénard-Marangoni convective flow, as well as application of control of chaos for communication.

Recently, Boccaletti co-authored several influential research papers discussing synchronization phenomena in complex networks, and introducing selection criteria for the wiring topology that enhance the emergence of synchronized dynamics in weighted scale-free networks, as well as in random graphs. Furthermore, Boccaletti studied regulation phenomena of complex networks, and how these latter ones can be used as a proper tool in computational system biology. He introduced the classification

method of complex networks networks in terms of their propensity to synchronization, which is the common standard today.

The monograph "Complex Networks: Structure and Dynamics", published in Physics Reports on 2006, received more than 8,200 citations (Google-Scholar), and converted into the most quoted paper ever appeared in the Annals of that Journal.

TEACHING EXPERIENCE

Boccaletti has taught at the University of Navarra both at undergraduate ("Applied Mathematics", 60 hours courses for the biology career and for the chemistry career), and graduate level (giving PhD courses on "Signal Analysis and Processing", "Instabilities and Space-Time Chaos in Nonlinear Optics" and "Control of Chaotic Systems" within the PhD career on Physics at the University of Navarra). Furthermore, he has been invited by the University of Zaragoza (Spain) to teach 6 PhD courses on "Control of Chaos". Boccaletti has furthermore taught the PhD course on "Nonlinear Data Analysis" within the PhD on Complex Systems hold by the University of Florence. Boccaletti has also taught more than 250 hours course on Systems Biology at the Universidad Politecnica de Madrid from 2011 to 2013.

INTERNATIONAL COLLABORATIONS

During the course of his research career, Boccaletti has established and maintained relationships with many Universities internationally, such as the University of Buenos Aires (Argentina), the University of Navarra (Spain), the University of Potsdam (Germany), the University of Maryland at College Park (USA), the Arizona State University at Phoenix (USA), the Georgia Institute for Technology and the Emory University at Atlanta (USA), the Weizmann Institute of Science at Rehovot (Israel), the University of West Virginia at Morgantown (USA), the University of Princeton (USA), the Institute Non Lineaire de Nice (France), the University of Santiago de Compostela (Spain), the Technical University of Berlin (Germany), the University Complutense of Madrid (Spain), the University of Zaragoza (Spain), the University Rey Juan Carlos (Spain), the University of Lisboa (Portugal), the National Institute of Applied Optics (Italy), the Universidad Rey Juan Carlos (Spain), the Technion Institute of Technology in Haifa (Israel), the University of Tel Aviv (Israel), in some cases giving lectures and seminars, in others undertaking joint research projects or research exchanges. The joint researches and projects have generated a Marie-Curie European network, a STREP European Project, a Fullbright Project for the Interchange between Spain and US, two integrated actions Italy-Spain, several research projects funded by the Spanish and Italian Ministries of Science.

As Scientific Attache' of the Italian Embassy in Israel, Boccaletti has managed all the main scientific, technological and industrial interactions between Italy and Israel, under the framework of the Government-to-Government Agreement on Scientific, technological and industrial cooperation between Italy and Israel (activities for about 10 Million Euros per year during the periods 2007-2011 and 2014-2018).

PARTICIPATION TO INTERNATIONAL EVENTS AND ORGANIZATION OF CONFERENCES

Boccaletti has about 95 invited participations to International Conferences, Workshops and Schools.

He personally organized, among others, the following international events:

- the Third EuroConference on Control of Chaos (Montecatini, May 16-18, 1997);
- the International Summer School on "Characterization, Control and Synchronization of Space Time Chaos" (Pamplona, June 19-23, 2000);
- the sixth, seventh, eighth, ninth, tenth and eleventh edition of the Experimental Chaos Conference;
- the international Workshop entitled "Control, Communication, and Synchronization in Chaotic Dynamical Systems", Dresden, October 14 - November 23, 2001;
- the international school entitled "Fundamentals and Perspectives of Nonlinear Dynamics", Brasilia, July 1-5, 2002;
- the international Workshop entitled "Bio-Inspired Design of Networks", Dresden, April 14 - May 3, 2008;
- the international Workshop entitled "Structure and Dynamics of Complex Networks", Brasilia, December 10-14, 2007;
- 41 binational Italian-Israeli workshops and conferences in his capacity of Scientific Attache' of the Italian Embassy in Israel (2007 - 2011);
- the XXXIII edition of Dynamics Days Europe, Madrid, June 3-7, 2013;
- the international school entitled "Biological Complex Networks: from the Cell to the brain and beyond", Natal (Brazil), July 8-19, 2013.

In his capacity of Scientific Attache' of the Italian Embassy in Israel, Boccaletti organized a total of 77 binational (Italian Israeli) Conferences in all fields of science.

MANAGEMENT AND DIRECTION OF RESEARCH

PhD students supervised: A. Navas, S. de San Roman, R. Gutiérrez, M. Zanin. I. Bonamassa.

Post-doctoral fellows supervised: Drs. M. Chavez, C. Mendoza, D.-U. Hwang, D. Papo, R. Bajo.

Boccaletti has been the scientist in charge for the research unit of Florence within the FIRB-MIUR project n. RBNE01CW3M-001 on nonlinear and complex phenomena in networks of dynamical units.

He has been the scientist in charge for the research unit of Florence within the STREP European project on "Global Approach to Brain Dynamics" starting January the 1st, 2007.

As scientific Attaché of the Italian Embassy in Israel, Boccaletti has been in charge of managing and coordinating the entire framework of scientific, technological and industrial cooperation between Italy and Israel, for a budget of about 10 million Euro a year, during the years 2007, 2008, 2009, 2010, 2014, 2015, 2016, 2017 and 2018.

Total number of projects directly funded and managed: 107. Indirect revenues (i.e. additional funding attracted from EU and other international agencies to the binational platform of interchanges that was constructed in those years): about 43 Million dollars.

During 2011 and 2012, Boccaletti was in charge of directing and coordinating the activities of the group of Computational Systems Biology at the Universidad Politecnica de Madrid (Center for Biomedical Technology), which is composed of 11 scientists.

Boccaletti is today Director of the Joint Italian-Spanish Laboratory on Complex Biological Networks, established on 3 June 2013 between the Italian CNR (Institute of Complex Systems) and the Technical University of Madrid, under the patronage of the Italian Embassy in Spain.

SERVICES TO THE SCIENTIFIC COMMUNITY

Referee of:

Nature, Science, PNAS, Physical Review Letters, Physical Review A, Physical Review E, Physica D, Physics Letters A, Chaos, PlosONE, Journal of Nonlinear Science (among others).

Editorial Board Memberships:

Editor in Chief of the Journal "Chaos, Solitons and Fractals" (Elsevier) from 2013.

Editor of the Journal "CHAOS" (American Institute of Physics) from 2007 to 2013.

Academic Editor of the Journal "PlosONE" from 2011 to 2013.

Member of the Editorial Board of the Journal "Dynamical Systems: Chaos and Complexity Letters".

Associate Editor of the Journal "Mathematical Biosciences and Engineering" (American Institute of Mathematical Sciences).

Honorary Member of the Editorial Board of the Journal "International Journal of Bifurcation and Chaos" (World Scientific).

Guest Editor activity:

Guest Editor of the special issue of Int. J. Bif. and Chaos, containing the proceedings of the Third EuroConference on Control of Chaos.

Editor of the Book "Space-Time Chaos: characterization, control and synchronization", World Scientific 2001.

Editor of the American Institute of Physics Proceeding Books for the 6th ,7th , and 8th Experimental Chaos Conferences (AIP Conference Proceedings n. 622, 676 and 742).

Editor of the Focus Issue (Vol. 13 n. 1, march 2003) of the Journal Chaos entitled "Control and Synchronization in Chaotic Dynamical Systems".

Editor of the "Handbook on Biological Networks", World Scientific, 2010.

Elected Member of the Florence City Council from 1995 to 1999.

Honorary Member of the directorial board of SICC (Italian Society for Chaos and Complexity).

Member of the *Accademia Europaea* since 2016.

**LIST OF SCIENTIFIC PUBLICATIONS
(LIMITED TO THE 200 MOST RELEVANT OF THE CANDIDATE,
AND ORDERED BY NUMBER OF CITATIONS RECEIVED,
AS FOR GOOGLE SCHOLAR ON DATE 13.02.2016)**

1. Boccaletti, Stefano; Latora, Vito; Moreno, Yamir; Chavez, Martin; Hwang, D-U, *Complex networks: Structure and dynamics*, Physics reports,424,4,175-308,2006,Elsevier
2. Boccaletti, Stefano; Kurths, Jürgen; Osipov, Grigory; Valladares, DL; Zhou, CS, *The synchronization of chaotic systems*, Physics reports,366,1,1-101,2002,North-Holland
3. Boccaletti, Stefano; Grebogi, Celso; Lai, Y-C; Mancini, H; Maza, Diego, *The control of chaos: theory and applications*, Physics reports,329,3,103-197,2000,North-Holland
4. Chavez, M; Hwang, D-U; Amann, A; Hentschel, HGE; Boccaletti, S, *Synchronization is enhanced in weighted complex networks*, Physical Review Letters,94,21,218701,2005,American Physical Society
5. Arecchi, F Tito; Boccaletti, Stefano; Ramazza, PierLuigi,

- Pattern formation and competition in nonlinear optics*,
Physics Reports,318,1,1-83,1999,Elsevier
6. Hwang, D-U; Chavez, M; Amann, A; Boccaletti, S,
Synchronization in complex networks with age ordering,
Physical review letters,94,13,138701,2005,APS
 7. Boccaletti, S; Valladares, DL,
Characterization of intermittent lag synchronization,
Physical Review E,62,5,7497,2000,APS
 8. Boccaletti, S; Pecora, Louis M; Pelaez, Antonio,
Unifying framework for synchronization of coupled dynamical systems,
Physical Review E,63,6,066219,2001,American Physical Society
 9. Boccaletti, S; Farini, A; Arecchi, FT,
Adaptive synchronization of chaos for secure communication,
Physical Review E,55,5,4979,1997,APS
 10. Boccaletti, S; Ivanchenko, M; Latora, V; Pluchino, A; Rapisarda, A,
Detecting complex network modularity by dynamical clustering,
Physical Review E,75,4,045102,2007,APS
 11. Boccaletti, S; Bragard, Jean; Arecchi, FT; Mancini, H,
Synchronization in nonidentical extended systems,
Physical review letters,83,3,536,1999,American Physical Society
 12. Arecchi, FT; Boccaletti, S; Ramazza, PL; Residori, S,
Transition from boundary-to bulk-controlled regimes in optical pattern formation,
Physical review letters,70,15,2277,1993,American Physical Society
 13. Boccaletti, S; Allaria, E; Meucci, R; Arecchi, FT,
*Experimental Characterization of the Transition to Phase Synchronization of
Chaotic CO₂ Laser Systems*,
Physical review letters,89,19,194101,2002,American Physical Society
 14. Boccaletti, S; Arecchi, FT,
Adaptive control of chaos,
EPL (Europhysics Letters),31,3,127,1995,IOP Publishing
 15. Boccaletti, S; Bragard, Jean; Arecchi, FT,
Controlling and synchronizing space time chaos,
Physical Review E,59,6,6574,1999,American Physical Society
 16. Ramazza, PL; Ducci, S; Boccaletti, S; Arecchi, FT,
Localized versus delocalized patterns in a nonlinear optical interferometer,
Journal of Optics B: Quantum and Semiclassical Optics,2,3,399,2000,IOP Publishing
 17. Arecchi, FT; Boccaletti, S; Ciofini, M; Meucci, R; Grebogi, C,
The control of chaos: theoretical schemes and experimental realizations,

International Journal of Bifurcation and Chaos,8,08,1643-1655,1998,
World Scientific Publishing Company

18. Boccaletti, S; Valladares, DL; Kurths, J; Maza, Diego; Mancini, H,
Synchronization of chaotic structurally nonequivalent systems,
Physical Review E,61,4,3712,2000,American Physical Society

19. Kurths, Juergen; Boccaletti, S; Grebogi, C; Lai, Y-C,
Introduction: Control and synchronization in chaotic dynamical systems,
Chaos: An Interdisciplinary Journal of Nonlinear Science,13,1,126-127,2003,AIP Publishing

20. Arecchi, FT; Basti, G; Boccaletti, S; Perrone, AL,
Adaptive recognition of a chaotic dynamics,
EPL (Europhysics Letters),26,5,327,1994,IOP Publishing

21. Boccaletti, S; Hwang, D-U; Chavez, M; Amann, A; Kurths, J; Pecora, LM,
Synchronization in dynamical networks: Evolution along commutative graphs,
Physical Review E,74,1,016102,2006,APS

22. Boccaletti, S; Maza, Diego; Mancini, H; Genesio, R; Arecchi, FT,
Control of defects and spacelike structures in delayed dynamical systems,
Physical review letters,79,26,5246,1997,American Physical Society

23. Maza, Diego; Vallone, A; Mancini, H; Boccaletti, S,
Experimental phase synchronization of a chaotic convective flow,
Physical review letters,85,26,5567,2000,American Physical Society

24. Zhou, CS; Kurths, J; Allaria, E; Boccaletti, S; Meucci, R; Arecchi, FT,
Constructive effects of noise in homoclinic chaotic systems,
Physical Review E,67,6,066220,2003,APS

25. Sorrentino, F; Di Bernardo, M; Cuellar, G Huerta; Boccaletti, S,
Synchronization in weighted scale-free networks with degree-degree correlation,
Physica D: nonlinear phenomena,224,1,123-129,2006,North-Holland

26. Ramazza, PL; Benkler, E; Bortolozzo, U; Boccaletti, S; Ducci, S; Arecchi, FT,
Tailoring the profile and interactions of optical localized structures,
Physical Review E,65,6,066204,2002,APS

27. Residori, S; Ramazza, PL; Pampaloni, E; Boccaletti, S; Arecchi, FT,
Domain coexistence in two-dimensional optical patterns,
Physical review letters,76,7,1063,1996,American Physical Society

28. Boccaletti, S; Valladares, DL; Pecora, Louis M; Geffert, Hite P; Carroll, T,
Reconstructing embedding spaces of coupled dynamical systems from multivariate data,
Physical Review E,65,3,035204,2002,American Physical Society

29. Fiasconaro, A.; Spagnolo, B.; Boccaletti, S,
Signatures of noise-enhanced stability in metastable states,

Physical Review E,72,6,061110,2005,APS

30. Zhou, CS; Kurths, J; Allaria, E; Boccaletti, S; Meucci, R; Arecchi, FT,
Noise-enhanced synchronization of homoclinic chaos in a CO₂ laser,
Physical Review E,67,1,015205,2003,American Physical Society

31. Chavez, M; Hwang, D-U; Amann, A; Boccaletti, S,
Synchronizing weighted complex networks,
Chaos: An Interdisciplinary Journal of Nonlinear Science,16,1,015106,2006,AIP Publishing

32. Pisarchik, AN; Jaimes-Reátegui, R; Villalobos-Salazar, JR; Garcia-Lopez, JH; Boccaletti, S,
Synchronization of chaotic systems with coexisting attractors,
Physical review letters,96,24,244102,2006,American Physical Society

33. Arecchi, FT; Boccaletti, S; Mindlin, GB; Garcia, C Perez,
Periodic and chaotic alternation in systems with imperfect O(2) symmetry,
Physical review letters,69,26,3723,1992,American Physical Society

34. de San Roman, FS; Boccaletti, S; Maza, Diego; Mancini, H,
Weak synchronization of chaotic coupled map lattices,
Physical review letters,81,17,3639,1998,American Physical Society

35. Li, D; Leyva, I; Almendral, JA; Sendina-Nadal, I; Buldú, JM; Havlin, S; Boccaletti, S,
Synchronization interfaces and overlapping communities in complex networks,
Physical review letters,101,16,168701,2008,APS

36. Casado, S; González-Viñas, Wenceslao; Mancini, H; Boccaletti, S,
Topological defects after a quench in a Bénard-Marangoni convection system,
Physical Review E,63,5,057301,2001,American Physical Society

37. Lodato, Ivano; Boccaletti, Stefano; Latora, Vito,
Synchronization properties of network motifs,
EPL (Europhysics Letters),78,2,28001,2007,IOP Publishing

38. Frasca, Mattia; Buscarino, Arturo; Rizzo, Alessandro; Fortuna, Luigi; Boccaletti, Stefano,
Synchronization of moving chaotic agents,
Physical Review Letters,100,4,044102,2008,American Physical Society

39. Plaza, F; Velarde, MG; Arecchi, FT; Boccaletti, S; Ciofini, M; Meucci, R,
Excitability following an avalanche-collapse process,
EPL (Europhysics Letters),38,2,85,1997,IOP Publishing

40. Boccaletti, S; Farini, A; Kostelich, EJ; Arecchi, FT,
Adaptive targeting of chaos,
Physical Review E,55,5,R4845,1997,American Physical Society

41. Arecchi, FT; Boccaletti, S; Ducci, S; Pampaloni, E; Ramazza, PL; Residori, S,
The liquid crystal light valve with optical feedback: a case study in pattern formation,
Journal of Nonlinear Optical Physics & Materials,9,02,183-204,2000,
World Scientific Publishing Company

42. Frasca, Mattia; Buscarino, Arturo; Rizzo, Alessandro; Fortuna, Luigi; Boccaletti, Stefano, *Dynamical network model of infective mobile agents*, Physical Review E,74,3,036110,2006,APS
43. Ramazza, Pier Luigi; Boccaletti, Stefano; Giaquinta, Antonio et al., *Optical pattern selection by a lateral wave-front shift*, Physical Review A,54,4,3472,1996,APS
44. Chavez, Mario; Adam, Claude; Navarro, Vincent; Boccaletti, Stefano et al., *On the intrinsic time scales involved in synchronization: a data-driven approach*, Chaos: An Interdisciplinary Journal of Nonlinear Science,15,2,023904,2005,AIP Publishing
45. Bragard, Jean; Boccaletti, S; Mancini, H, *Asymmetric coupling effects in the synchronization of spatially extended chaotic systems*, Physical review letters,91,6,064103,2003,American Physical Society
46. Hramov, Alexander E; Koronovskii, Alexey A; Kurovskaya, Maria K; Boccaletti, S, *Ring intermittency in coupled chaotic oscillators at the boundary of phase synchronization*, Physical review letters,97,11,114101,2006,APS
47. Boccaletti, Stefano, *The synchronized dynamics of complex systems*, 2008,Elsevier
48. Leyva, I; Allaria, E; Boccaletti, S; Arecchi, FT, *Competition of synchronization domains in arrays of chaotic homoclinic systems*, Physical Review E,68,6,066209,2003,American Physical Society
49. Arecchi, FT; Boccaletti, S, *Adaptive strategies for recognition, noise filtering, control, synchronization and targeting of chaos*, Chaos: An Interdisciplinary Journal of Nonlinear Science,7,4,621-634,1997,AIP Publishing
50. Boccaletti, S; Arecchi, FT, *Adaptive recognition and control of chaos*, Physica D: Nonlinear Phenomena,96,1,9-16,1996,North-Holland
51. Hramov, Alexander E; Koronovskii, Alexey A; Kurovskaya, Maria K; Ovchinnikov, Alexey A; Boccaletti, Stefano, *Length distribution of laminar phases for type-I intermittency in the presence of noise*, Physical Review E,76,2,026206,2007,APS
52. Bragard, Jean; Boccaletti, Stefano, *Integral behavior for localized synchronization in nonidentical extended systems*, Physical Review E,62,5,6346,2000,American Physical Society
53. Fuchs, Einat; Ayali, Amir; Ben-Jacob, Eshel; Boccaletti, Stefano, *The formation of synchronization cliques during the development of modular neural networks*,

Physical biology,6,3,036018,2009,IOP Publishing

54. Angelini, Leonardo; Boccaletti, Stefano et al. ,
Identification of network modules by optimization of ratio association,
Chaos: An Interdisciplinary Journal of Nonlinear Science,17,2,023114,2007,AIP Publishing

55. Arecchi, FT; Boccaletti, S; Giacomelli, G; Puccioni, GP; Ramazza, PL; Residori, S,
Patterns, space-time chaos and topological defects in nonlinear optics,
Physica D: Nonlinear Phenomena,61,1,25-39,1992,North-Holland

56. Chavez, M; Hwang, D-U; Martinerie, J; Boccaletti, S,
Degree mixing and the enhancement of synchronization in complex weighted networks,
Physical Review E,74,6,066107,2006,APS

57. Boccaletti, S; Farini, A; Arecchi, FT,
Adaptive strategies for recognition, control and synchronization of chaos,
Chaos, Solitons & Fractals,8,9,1431-1448,1997,Elsevier

58. Pastur, Luc; Gostiaux, Louis; Bortolozzo, Umberto; Boccaletti, Stefano; Ramazza, Pier Luigi,
Experimental targeting and control of spatiotemporal chaos in nonlinear optics,
Physical review letters,93,6,063902,2004,American Physical Society

59. Boccaletti, S; Giaquinta, A; Arecchi, FT,
Adaptive recognition and filtering of noise using wavelets,
Physical review E,55,5,5393,1997,APS

60. Hwang, Dong-Uk; Boccaletti, S; Moreno, Y; Lopez-Ruiz, R,
Thresholds for epidemic outbreaks in finite scale-free networks,
Mathematical Biosciences and Engineering,2,2,317-327,2005

61. Boccaletti, Stefano et al. ,
Multiscale vulnerability of complex networks,
Chaos: An Interdisciplinary Journal of Nonlinear Science,17,4,043110,2007,AIP Publishing

62. Sendiña-Nadal, Irene; Buldú, Javier M; Leyva, Inmaculada; Boccaletti, Stefano,
Phase locking induces scale-free topologies in networks of coupled oscillators,
PloS one,3,7,e2644,2008,Public Library of Science

63. Mendoza, C; Boccaletti, S; Politi, A,
Convective instabilities of synchronization manifolds in spatially extended systems,
Physical Review E,69,4,047202,2004,American Physical Society

64. Leyva, I; Allaria, E; Boccaletti, S; Arecchi, FT,
In phase and antiphase synchronization of coupled homoclinic chaotic oscillators,
Chaos: An Interdisciplinary Journal of Nonlinear Science,14,1,118-122,2004,AIP Publishing

65. Madruga, S; Boccaletti, Stefano; Matias, Manuel A,
Effect of a variable delay in delayed dynamical systems,
International Journal of Bifurcation and Chaos,11,11,2875-2880,2001,

World Scientific Publishing Company

66. Buldú, Javier M; Cano, P; Koppenberger, M; Almendral, Juan A; Boccaletti, S,
The complex network of musical tastes,
New Journal of Physics,9,6,172,2007,IOP Publishing

67. Bragard, Jean; Boccaletti, S; Mendoza, C; Hentschel, HGE; Mancini, H,
Synchronization of spatially extended chaotic systems in the presence of asymmetric coupling,
Physical Review E,70,3,036219,2004,American Physical Society

68. Ben-Jacob, Eshel; Boccaletti, Stefano et al.,
Detecting and localizing the foci in human epileptic seizures,
Chaos: An Interdisciplinary Journal of Nonlinear Science,17,4,043113,2007,AIP Publishing

69. Bragard, J; Arecchi, FT; Boccaletti, S,
Characterization of synchronized spatiotemporal states in coupled nonidentical complex Ginzburg–Landau equations,
International Journal of Bifurcation and Chaos,10,10,2381-2389,2000,
World Scientific Publishing Company

70. Ramazza, Pier Luigi; Boccaletti, Stefano; Arecchi, Fortunato Tito,
Transport induced patterns in an optical system with focussing nonlinearity,
Optics communications,136,3,267-272,1997,North-Holland

71. Chavez, M; Hwang, D-U; Boccaletti, S,
Synchronization processes in complex networks,
The European Physical Journal Special Topics,146,1,129-144,2007,EDP Sciences

72. Boccaletti, S; Allaria, E; Meucci, R,
Experimental control of coherence of a chaotic oscillator,
Physical Review E,69,6,066211,2004,APS

73. Ramazza, PL; Boccaletti, S; Bortolozzo, U; Arecchi, FT,
Control of localized structures in an optical feedback interferometer,
Chaos: An Interdisciplinary Journal of Nonlinear Science,13,1,335-341,2003,AIP Publishing

74. Labate, A; Ciofini, M; Meucci, R; Boccaletti, S; Arecchi, FT,
Pattern dynamics in a large Fresnel number laser close to threshold,
Physical Review A,56,3,2237,1997,APS

75. Bove, Italo; Boccaletti, S; Bragard, Jean; Kurths, J; Mancini, H,
Frequency entrainment of nonautonomous chaotic oscillators,
Physical Review E,69,1,016208,2004,American Physical Society

76. López-Ruiz, R; Moreno, Y; Pacheco, AF; Boccaletti, S; Hwang, D-U,
Awaking and sleeping of a complex network,
Neural networks,20,1,102-108,2007,Pergamon

77. Bragard, Jean; Vidal, Gerard; Mancini, H; Mendoza, C; Boccaletti, S,
Chaos suppression through asymmetric coupling,

Chaos: An Interdisciplinary Journal of Nonlinear Science,17,4,043107,2007,AIP Publishing

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