
Tomás S. Grigera — Curriculum Vitae et Studiorum

Personal

Contact information	GRIGERA, Tomás Sebastián Instituto de Física de Líquidos y Sistemas Biológicos (IFLYSIB) Calle 59 n. 789 B1900BTE La Plata ARGENTINA Tel.: +54-221-425-4904 ext. 21 FAX: +54-221-425-7317 e-mail: tgrigera@iflysib.unlp.edu.ar
Born	1969 in La Plata, Argentina
Citizenship	Italian

Present positions

Since 1-Nov-10	Independent researcher of Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET). Instituto de Física de Líquidos y Sistemas Biológicos (IFLYSIB), CONICET and University of La Plata, Argentina.
Since 16-Dec-08	Assistant Professor. Departamento de Física, Facultad de Ciencias Exactas, Universidad Nacional de La Plata.

Research interests

Active matter systems; collective motion in biology; supercooled liquids and glasses; slow dynamics and ageing.

Prizes and awards

2010	Prize for young scientists, Fundación Bunge y Born, Buenos Aires, Argentina.
------	--

Education

11-Feb-1998	Ph.D. in Physics. University of La Plata, Argentina.
7-Dec-1993	M.Sc. in Physics. University of La Plata, Argentina. Recognized as equivalent (<i>equipollenza</i>) to the Italian <i>Laurea in Fisica</i> by <i>Sapienza</i> University of Rome (17-Apr-2002).

Research

23-Sep-19 – 4-Oct-19	Visiting Professor. Instituto de Física, Facultad de Ciencias, Universidad de la República (Montevideo, Uruguay).
1-Dec-15 –	Independent researcher CONICET, working at IFLYSIB, University of La Plata (Argentina).
1-Nov-10 – 30-Nov-14	Independent researcher CONICET, working at INIFTA, University of La Plata (Argentina).

7-Jan-08 – 5-Mar-08	Visiting Professor. Dipartimento di Fisica, Università degli studi di Trento (Italy).
2006 – 2011	Regular Associate, The Abdus Salam International Centre for Theoretical Physics (Trieste, Italy).
1-Nov-05 – 31-Oct-10	Associate researcher CONICET, working at INIFTA, University of La Plata (Argentina).
1-Apr-04 – 31-Oct-05	Assistant researcher of CONICET, working at INIFTA, University of La Plata (Argentina).
1-Oct-03 – 31-Mar-04	Postdoctoral fellow of CONICET.
1-Mar-00 – 30-Sep-03	Postdoctoral fellow. Dipartimento di Fisica, Università di Roma <i>La Sapienza</i> , Rome, Italy.
1-Mar-98 – 28-Feb-00	Visiting Scholar / postdoctoral fellow. Department of Physics, Northeastern University, Boston, USA.
1-Jul-97 – 31-Ago-97	Visiting Scholar. Department of Physics, Northeastern University, Boston, USA.
20-Jan-96 – 31-Mar-96	Visitor. Laboratoire d' Ultrasons et de Dynamique des Fluides Complexes, Université Louis Pasteur, Strasbourg, France.
1-Apr-94 – 28-Feb-98	Ph.D. student. Instituto de Investigaciones Fisicoquímicas Teóricas y Aplicadas (INIFTA), University of La Plata, Argentina. Advisor: Prof. Dr. Rubén V. Figini.
1-Feb-93 – 30-May-93	Student intern. Centro de Investigación, Fundación para el Desarrollo Tecnológico, Organización Techint, Campana, Argentina

Teaching

16-Dec-08 –	Assistant Professor. Departamento de Física, Facultad de Ciencias Exactas, Universidad Nacional de La Plata.
1-Aug-05 – 15-Dec-08	Assistant Professor (temporary). Freshman physics and statistical mechanics. Departamento de Física, Facultad de Ciencias Exactas, Universidad Nacional de La Plata.
26-Mar-04 – 28-Feb-06	Senior teaching assistant. Sophomore mathematics for engineers. Departamento de Fisicomatemáticas, Facultad de Ingeniería, Universidad Nacional de La Plata.
1-Apr-97 – 30-Sep-03	Teaching assistant. Departamento de Física, Universidad Nacional de La Plata (on leave from 1-Mar-98).
1-Nov-94 – 18-Mar-97	Teaching assistant, freshman calculus. Departamento de Matemáticas, Universidad Nacional de La Plata.
18-May-94 – 20-Dic-94	Instructor, freshman calculus, Instituto del profesorado Juan N. Terrero, La Plata.
1-Dic-92 – 13-Mar-95	Teaching assistant, freshman physics. Departamento de Física, Universidad Nacional de La Plata.

15-Apr-91 – 28-Feb-93	Teaching assistant, freshman calculus for engineers. Departamento de Fisicomatemáticas, Facultad de Ingeniería, Universidad Nacional de La Plata.
01-Feb-91 – 28-Feb-91	Teaching assistant, freshman mathematics. Facultad de Ciencias Exactas, Universidad Nacional de La Plata.
23-Aug-90 – 31-Dic-90	Teaching assistant, sophomore physics. Departamento de Física, Universidad Nacional de La Plata.

Fellowships

1-Mar-00 – 30-Oct-00	Postdoctoral fellowship. Instituto Nazionale di Fisica Nucleare, Italy.
1-Apr-99 – 31-Mar-02	Postdoctoral fellowship. CONICET.
1-May-98 – 30-Apr-99	Postdoctoral fellowship. Fundación Antorchas, Argentina.
1-Apr-94 – 31-Mar-98	Graduate studies fellowship. Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET), Argentina.
1-Mar-91 – 31-Dic-93	Undergraduate studies fellowship. Fundación Bolsa de Comercio de Buenos Aires.

Research grants received (as principal investigator)

January 2017	Research grant ERANet-LAC ELAC2015/T01-0593 (three years). International collaboration among four groups (La Plata, Montevideo, Rome, Ghent). PI of the La Plata group and consortium coordinator.
March 2016	Research grant PIP 2015/010089 (three years) from CONICET.
October 2013	Research grant PICT 2012/0206 (three years), from Agencia Nacional de Promoción Científica y Tecnológica. Monto: \$288.800. Duración: 3 años.
January 2011	Research grant PIP0024 (three years) from CONICET (Argentina).
October 2008	Joint reasearch project within the Science and Technology Cooperation Agreement between Italy and Argentina. MinCyT (Argentina) and MAE (Italy). Italian coordinator: A. Cavagna.
December 2006	Young researcher grant from Agencia Nacional de Promoción Científica y Tecnológica (Argentina). 2 years.
July 2004	Reentry grant. Fundación Antorchas (Argentina). 1 year, renewed for an additional year August 2005.
November 2002	Grant “Enrico Fermi”. Centro di studi e ricerche “Enrico Fermi”, Roma (Italy). 1 year.

Invited lectures at short schools

1. Dynamics of structural glasses (20 hours). *Escuela IB-CAB de Dinámica fuera del equilibrio en sistemas complejos*, Instituto Balseiro (Bariloche, Argentina), 27 september to 24 october 2004.
2. Introduction to structural glasses (3 hours). *1st Latin American School on Statistical Mechanics of Complex Sytems*, La Habana (Cuba), 28 february to 9 march 2005.

-
3. Introduction to structural glasses (3 hours). *School on Modelling Elastic Manifolds (from Soft Condensed Matter to Biomolecules)*, The Abdus Salam Centre for Theoretical Physics, Trieste (Italy), 24 and 25 July 2006.
 4. Disordered systems and Monte Carlo simulations (1 hour). *2nd EULASUR summer school*, La Plata, 4 to 9 September 2011.
 5. Liquids and disordered systems (20 hours). *Curso del TREFEMAC 2015*, (Los Reyunos, Mendoza, Argentina), 30 April to 5 May 2015 (together with Prof. M. Carlevaro).

Invited talks at scientific meetings

1. Vibrations in glasses: a Random Matrix approach, *Unifying concepts in glass theory*, Accademia Nazionale dei Lincei, Roma, February 27–March 2, 2002.
2. La transición vítrea y las propiedades geométricas de la hipersuperficie de energía potencial, *II Taller Regional de Física Estadística y sus Aplicaciones a la Materia Condensada*, Córdoba, 27–28 May 2004.
3. Out of equilibrium dynamics of glassy systems. *Workshop on dynamics and relaxation in supercooled fluids and glassy systems*, Mar del Plata, 26–29 September 2004.
4. Comparison of algorithms to search for saddle points, *1st Latin American Conference on Statistical Mechanics and Interdisciplinary Applications*, La Habana (Cuba), 10–12 March 2005.
5. Mechanical instability of disordered structures and the glass transition, *Conference on Modelling Elastic Manifolds*, ICTP, Trieste (Italy), 26–29 July 2006.
6. Mosaic multi-state vs. one-state description of supercooled liquids, *Second Latin American Conference on Statistical Physics and Interdisciplinary Applications*, Bento Gonçalves (Brasil), 13–15 February 2007.
7. Invited in the role of discussant. *Workshop on dynamical heterogeneities in glasses, colloids and granular media*, Lorentz Center, Leiden (Netherlands), August 25–September 5 2008.
8. Thermodynamics of supercooled liquids: spatial correlations at low temperatures. *Fronteras en fisicoquímica, un enfoque interdisciplinario (conference on occasion of the 60th anniversary of INIFTA)*, La Plata (Argentina), 24–28 November 2008.
9. Surface tension and spinodal limit in supercooled liquids. *International Discussion Meeting on Relaxation in Complex Systems*. Rome (Italy), August 30–September 5 2009.
10. Dynamic heterogeneities and phase separation in a supercooled liquid. *Humboldt Kolleg 2011*. La Plata (Argentina), March 2011.
11. Condiciones de contorno amorfas: una herramienta para el estudio de sistemas desordenados. *Reunión Nacional de Física del Estado Sólido (Sólidos 20119)*. Tucumán (Argentina), 8 to 11 November 2011.
12. Dynamics of a model supercooled liquid confined in a cavity with amorphous boundary conditions. *Workshop on Structure and Dynamics of Glassy, Supercooled and Nanoconfined Fluids*. CAC-CNEA, Buenos Aires, 16 to 18 May 2012.

-
13. Order-agnostic lengthscales in supercooled liquids through amorphous boundary conditions. *CECAM Workshop on "From cooperativity in supercooled liquids to plasticity of amorphous solids"*. ETH Zurich (Switzerland), 26 to 28 June 2013.
 14. Condiciones de contorno amorfas y longitudes de correlación agnósticas en líquidos sobreenfriados. *XII Congreso regional de Física Estadística y aplicaciones a la materia condensada (TREFEMAC 2014)*. Bahía Blanca (Argentina), 7 to 9 May 2014.
 15. Correlaciones y criticalidad en el movimiento colectivo de estorninos y jejenos. *CII Reunión de la Asociación Física Argentina, sesiones de la División de Materia Blanda*. La Plata (Argentina), 26 to 29 september 2017.

Languages

Spanish	Mother tongue.
English	<ul style="list-style-type: none">• First Certificate in English, University of Cambridge Local Examinations Syndicate (december 1984)• Certificate of Proficiency in English. University of Cambridge Local Examinations Syndicate (december 1987).
German	Zertifikat Deutsch als Fremdsprache, Goethe-Institut Buenos Aires (december 1995).
Italian	Conversation and text comprehension.
French	Basic conversation, technical text comprehension.

Publications

Statistics:

- **SCOPUS (9/2019)**: 55 indexed documents, 1635 total citations, h-index 21.
- **Google scholar (9/2019)**: 2277 total citations, h-index 23.

Publications

- [1] M. V. CERESSETTO, T. S. GRIGERA, B. O'DONNELL DE JUÁREZ ARÁOZ, J. SANDOVAL, AND M. GARAVAGLIA, Sobre el criterio de resolución de Rayleigh para fuentes policromáticas. *Anales de la Asoc. Fís. Arg.* **3**, 192–195 (1991).
- [2] J. R. GRIGERA, T. S. GRIGERA, E. I. HOWARD, AND A. D. PODJARNY, Molecular Dynamics Simulation of Crystal Water with X-Ray Constraints. *Int. J. Quantum Chem.* **21** (1994).
- [3] T. S. GRIGERA AND J. L. ALESSANDRINI, Elastic scattering from diblock copolymer chains in dilute solution. *J. Chem. Phys.* **104**, 6027–6035 (1996).
- [4] S. A. GRIGERA, T. S. GRIGERA, AND J. R. GRIGERA, Random surface deposition of diffusing dimers in two dimensions. *Phys. Lett. A* **226**, 124–126 (1997).
- [5] N. E. ISRAELOFF AND T. S. GRIGERA, Low-frequency dielectric fluctuations near the glass transition. *Europhys. Lett.* **43**, 308–313 (1998).
- [6] T. S. GRIGERA AND N. E. ISRAELOFF, Observation of fluctuation-dissipation-theorem violations in a structural glass. *Phys. Rev. Lett.* **83**, 5038–5041 (1999).

-
- [7] T. S. GRIGERA, V. MARTÍN-MAYOR, G. PARISI, AND P. VERROCCHIO, Vibrational Spectrum of Topologically Disordered Systems. *Phys. Rev. Lett.* **87**, 085502 (2001).
- [8] T. S. GRIGERA AND G. PARISI, Fast Monte Carlo algorithm for supercooled soft spheres. *Phys. Rev. E* **63**, 045102 (2001).
- [9] S. A. GRIGERA, T. S. GRIGERA, E. F. RIGHI, G. NIEVA, AND F. DE LA CRUZ, Flux-cutting in $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ revisited. *Phys. C Supercond.* **371**, 237–242 (2002).
- [10] T. S. GRIGERA, A. CAVAGNA, I. GIARDINA, AND G. PARISI, Geometric Approach to the Dynamic Glass Transition. *Phys. Rev. Lett.* **88**, 055502 (2002).
- [11] T. S. GRIGERA, I. M. IRURZUN, M. S. CORTIZO, R. V. FIGINI, AND M. MARX-FIGINI, Unified analysis of thermodynamic and rheological properties of high polymer solutions. I. Binary systems. *J. Polym. Sci. Part B Polym. Phys.* **40**, 290–301 (2002).
- [12] T. S. GRIGERA AND N. E. ISRAELOFF, Numerical study of ageing in coupled two-level systems. *Philos. Mag. B* **82**, 313–322 (2002).
- [13] T. S. GRIGERA, V. MARTÍN-MAYOR, G. PARISI, AND P. VERROCCHIO, Vibrational spectra in glasses. *Philos. Mag. B* **82**, 637–649 (2002).
- [14] T. S. GRIGERA, V. MARTÍN-MAYOR, G. PARISI, AND P. VERROCCHIO, Vibrations in glasses and Euclidean random matrix theory. *J. Phys.: Condens. Matter* **14**, 2167 (2002).
- [15] I. M. IRURZUN, T. S. GRIGERA, M. S. CORTIZO, R. V. FIGINI, AND M. MARX-FIGINI, Unified analysis of thermodynamic and rheological properties of high polymer solutions. II. Ternary systems. *J. Pol. Sci. B: Polym. Phys.* **40**, 1071–1079 (2002).
- [16] A. CAVAGNA, I. GIARDINA, AND T. S. GRIGERA, Glass and polycrystal states in a lattice spin model. *J. Chem. Phys.* **118**, 6974 (2003).
- [17] A. CAVAGNA, I. GIARDINA, AND T. S. GRIGERA, Glassy dynamics, metastability limit and crystal growth in a lattice spin model. *Europhys. Lett.* **61**, 74–80 (2003).
- [18] A. CAVAGNA, I. GIARDINA, AND T. S. GRIGERA, A single saddle model for the β -relaxation in supercooled liquids. *J. Phys. A: Math. Gen.* **36**, 10721 (2003).
- [19] S. CILIBERTI, T. S. GRIGERA, V. MARTÍN-MAYOR, G. PARISI, AND P. VERROCCHIO, Brillouin and boson peaks in glasses from vector Euclidean random matrix theory. *J. Chem. Phys.* **119**, 8577 (2003).
- [20] T. S. GRIGERA, V. MARTÍN-MAYOR, G. PARISI, AND P. VERROCCHIO, Phonon interpretation of the ‘boson peak’ in supercooled liquids. *Nature* **422**, 289–292 (2003).
- [21] S. CILIBERTI AND T. S. GRIGERA, Localization threshold of instantaneous normal modes from level-spacing statistics. *Phys. Rev. E* **70**, 061502 (2004).
- [22] T. S. GRIGERA, V. MARTÍN-MAYOR, G. PARISI, AND P. VERROCCHIO, Asymptotic aging in structural glasses. *Phys. Rev. B* **70**, 014202 (2004).
- [23] S. CILIBERTI, T. S. GRIGERA, V. MARTÍN-MAYOR, G. PARISI, AND P. VERROCCHIO, Anderson localization in Euclidean random matrices. *Phys. Rev. B* **71**, 153104 (2005).
- [24] T. S. GRIGERA, Geometrical properties of the potential energy of the soft-sphere binary mixture. *J. Chem. Phys.* **124**, 064502 (2006).
- [25] A. CAVAGNA, T. S. GRIGERA, AND P. VERROCCHIO, Mosaic Multistate Scenario Versus One-State Description of Supercooled Liquids. *Phys. Rev. Lett.* **98**, 187801 (2007).

-
- [26] G. BIROLI, J.-P. BOUCHAUD, A. CAVAGNA, T. S. GRIGERA, AND P. VERROCCHIO, Thermodynamic signature of growing amorphous order in glass-forming liquids. *Nature Phys.* **4**, 771–775 (2008).
- [27] C. CAMMAROTA, A. CAVAGNA, G. GRADENIGO, T. S. GRIGERA, AND P. VERROCCHIO, Evidence for a spinodal limit of amorphous excitations in glassy systems. *J. Stat. Mech.* **2009**, L12002 (2009).
- [28] C. CAMMAROTA, A. CAVAGNA, G. GRADENIGO, T. S. GRIGERA, AND P. VERROCCHIO, Numerical determination of the exponents controlling the relationship between time, length, and temperature in glass-forming liquids. *J. Chem. Phys.* **131**, 194901 (2009).
- [29] E. S. LOSCAR, E. E. FERRERO, T. S. GRIGERA, AND S. A. CANNAS, Nonequilibrium characterization of spinodal points using short time dynamics. *J. Chem. Phys.* **131**, 024120 (2009).
- [30] C. CAMMAROTA, A. CAVAGNA, I. GIARDINA, G. GRADENIGO, T. S. GRIGERA, G. PARISI, AND P. VERROCCHIO, Phase-Separation Perspective on Dynamic Heterogeneities in Glass-Forming Liquids. *Phys. Rev. Lett.* **105**, 055703 (2010).
- [31] A. CAVAGNA, T. S. GRIGERA, AND P. VERROCCHIO, Numerical simulations of liquids with amorphous boundary conditions. *J. Stat. Mech.* **2010**, P10001 (2010).
- [32] G. GRADENIGO, A. SARRACINO, D. VILLAMAINA, T. S. GRIGERA, AND A. PUGLISI, The ratchet effect in an ageing glass. *J. Stat. Mech.* **2010**, L12002 (2010).
- [33] E. V. ALBANO, M. A. BAB, G. BAGLIETTO, R. A. BORZI, T. S. GRIGERA, E. S. LOSCAR, D. E. RODRIGUEZ, M. L. R. PUZZO, AND G. P. SARACCO, Study of phase transitions from short-time non-equilibrium behaviour. *Rep. Progr. Phys.* **74**, 026501 (2011).
- [34] T. S. GRIGERA, Glsim: A general library for numerical simulation. *Comp. Phys. Comm.* **182**, 2122–2131 (2011).
- [35] T. S. GRIGERA, V. MARTIN-MAYOR, G. PARISI, P. URBANI, AND P. VERROCCHIO, On the high-density expansion for Euclidean random matrices. *J. Stat. Mech.* **2011**, P02015 (2011).
- [36] A. CAVAGNA, T. S. GRIGERA, AND P. VERROCCHIO, Dynamic relaxation of a liquid cavity under amorphous boundary conditions. *J. Chem. Phys.* **136**, 204502 (2012).
- [37] G. GRADENIGO, R. TROZZO, A. CAVAGNA, T. S. GRIGERA, AND P. VERROCCHIO, Static correlations functions and domain walls in glass-forming liquids: The case of a sandwich geometry. *J. Chem. Phys.* **138**, 12A509 (2013).
- [38] A. ATTANASI, A. CAVAGNA, L. DEL CASTELLO, I. GIARDINA, T. S. GRIGERA, A. JELIĆ, S. MELILLO, L. PARISI, O. POHL, E. SHEN, AND M. VIALE, Information transfer and behavioural inertia in starling flocks. *Nature Phys.* **10**, 691–696 (2014).
- [39] A. CAVAGNA, L. DEL CASTELLO, I. GIARDINA, T. S. GRIGERA, A. JELIC, S. MELILLO, T. MORA, L. PARISI, E. SILVESTRI, M. VIALE, AND A. M. WALCZAK, Flocking and Turning: A New Model for Self-organized Collective Motion. *J. Stat. Phys.* **158**, 601–627 (2014).
- [40] A. CAVAGNA, I. GIARDINA, T. S. GRIGERA, A. JELIC, D. LEVINE, S. RAMASWAMY, AND M. VIALE, Silent Flocks: Constraints on Signal Propagation Across Biological Groups. *Phys. Rev. Lett.* **114**, 218101 (2015).
- [41] S. A. GRIGERA, R. BORZI, D. G. SLOBINSKY, A. S. GIBBS, R. HIGASHINAKA, Y. MAENO, AND T. S. GRIGERA, An intermediate state between the kagome-ice and the fully polarized state in $\text{Dy}_2\text{Ti}_2\text{O}_7$. *Pap. Phys.* **7**, 070009 (2015).

-
- [42] D. A. MÁRTIN, A. CAVAGNA, AND T. S. GRIGERA, Specific Heat Anomaly in a Supercooled Liquid with Amorphous Boundary Conditions. *Phys. Rev. Lett.* **114**, 225901 (2015).
- [43] A. SEIF, E. S. LOSCAR, AND T. S. GRIGERA, Aging and crystallization in a lattice glass model. *Phys. Rev. E* **91**, 042302 (2015).
- [44] A. CAVAGNA, D. CONTI, I. GIARDINA, T. S. GRIGERA, S. MELILLO, AND M. VIALE, Spatio-temporal correlations in models of collective motion ruled by different dynamical laws. *Phys. Biol.* **13**, 065001 (2016).
- [45] G. GRADENIGO, R. TROZZO, A. CAVAGNA, AND T. S. GRIGERA, Response to “Comment on ‘Static correlations functions and domain walls in glass-forming liquids: The case of a sandwich geometry’” [J. Chem. Phys. **144**, 227101 (2016)]. *J. Chem. Phys.* **144**, 227102 (2016).
- [46] E. S. LOSCAR, C. G. FERRARA, AND T. S. GRIGERA, Spinodals and critical point using short-time dynamics for a simple model of liquid. *J. Chem. Phys.* **144**, 134501 (2016).
- [47] A. CAVAGNA, D. CONTI, C. CREATO, L. DEL CASTELLO, I. GIARDINA, T. S. GRIGERA, S. MELILLO, L. PARISI, AND M. VIALE, Dynamic scaling in natural swarms. *Nature Phys.* **13**, 914–918 (2017).
- [48] C. G. FERRARA AND T. S. GRIGERA, Dynamics and structural behavior of water in large confinement with planar amorphous walls. *J. Chem. Phys.* **147**, 024705 (2017).
- [49] E. S. LOSCAR, D. A. MARTIN, AND T. S. GRIGERA, Stability limits for the supercooled liquid and superheated crystal of Lennard-Jones particles. *J. Chem. Phys.* **147**, 034504 (2017).
- [50] A. CAVAGNA, D. CONTI, I. GIARDINA, AND T. S. GRIGERA, Propagating speed waves in flocks: A mathematical model. *Phys. Rev. E* **98** (2018).
- [51] A. CAVAGNA, I. GIARDINA, AND T. S. GRIGERA, The physics of flocking: Correlation as a compass from experiments to theory. *Physics Reports* **728**, 1–62 (2018).
- [52] A. CAVAGNA, A. CULLA, L. DI CARLO, I. GIARDINA, AND T. S. GRIGERA, Low-temperature marginal ferromagnetism explains anomalous scale-free correlations in natural flocks. *Comptes Rendus Physique* **20**, 319–328 (2019).
- [53] A. CAVAGNA, L. DI CARLO, I. GIARDINA, L. GRANDINETTI, T. S. GRIGERA, AND G. PISEGNA, Dynamical Renormalization Group Approach to the Collective Behavior of Swarms. *Phys. Rev. Lett.* **123**, 268001 (2019).
- [54] A. CAVAGNA, L. DI CARLO, I. GIARDINA, L. GRANDINETTI, T. S. GRIGERA, AND G. PISEGNA, Renormalization group crossover in the critical dynamics of field theories with mode coupling terms. *Phys. Rev. E* **100**, 062130 (2019).
- [55] D. A. MARTIN, T. S. GRIGERA, AND V. I. MARCONI, Speeding up the study of diluted dipolar systems. *Phys. Rev. E* **99**, 022604 (2019).
- [56] M. L. RUBIO PUZZO, A. DE VIRGILIIS, AND T. S. GRIGERA, Self-propelled Vicsek particles at low speed and low density. *Phys. Rev. E* **99**, 052602 (2019).
- [57] G. BAGLIETTO, A. SEIF, T. S. GRIGERA, AND W. PAUL, Otherwise identical particles with differing, fixed speeds demix under time-reversible dynamics. *Phys. Rev. E* **101**, 062606 (2020).

La Plata, September 2019