Yan GRASSELLI

Professeur associé

Académie : Digitalisation

Centre de recherche : SKEMA Centre for Analytics and Operations

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Intérêts de recherche

Soft Condensed Matter including Rheological and Nano Rheological behaviors of fluids, Granular Materials, Electrical and Magnetic field induced properties of smart fluids.

Formation

1993	Doctorat en Physique de la matière condensée, Université Côte d'Azur, France

Expérience Professionnelle

Positions académiques principales

Depuis 2000	Associate professor, SKEMA Business School, France

Autres affiliations académiques

2017 - 2024	SKEMA BBA Director, SKEMA Business School, France
2014 - 2017	Deputy Director of the Bachelor Programme, SKEMA Business School, France
2009 - 2014	Academic Head Bachelors programmes, SKEMA Business School, France
2005 - 2009	Head of the mathematics & computer science dept. - Bachelors programmes, SKEMA Business School, France
1996 - 1999	Researcher at ICA1 - Post Doc, Universität Stuttgart, Allemagne

Autres expériences professionnelles

1999 - 2000	Network engineer, IBM, France

Contrats de recherche, prix et distinctions

Prix et distinctions

2009	Prix de l'innovation pédagogique, SKEMA Business School, France

Publications

Articles académiques revus

VOLKOVA, O., GRASSELLI, Y. et BOSSIS, G. (2026). Viscoelastic behavior at high volume fraction of magnetorheological suspensions in the presence of discontinuous shear thickening. *Journal of intelligent Material Systems and Structures*.

GEORGES, B., GRASSELLI, Y. et VOLKOVA, O. (2026). Enhancement of the magnetorheological effect using discontinuous shear thickening with a mixture of magnetic and non magnetic particles. *Journal of intelligent Material Systems and Structures*, 37(14), pp. 829 - 836.

BOSSIS, G., VOLKOVA, O. et GRASSELLI, Y. (2024). Discontinuous Shear Thickening of Suspensions of Magnetic Particles in Relation to the Polymer Coating on Their Surfaces. *Colloids and Interfaces*, 8(3), pp. 33.

BOSSIS, G., CIFFREO, A., GRASSELLI, Y. et VOLKOVA, O. (2023). Analysis of the rheology of magnetic bidisperse suspensions in the regime of discontinuous shear thickening. *Rheologica Acta*, 62(4), pp. 205-223.

BOSSIS, G., GRASSELLI, Y. et VOLKOVA, O. (2022). Capillary flow of a suspension in the presence of discontinuous shear thickening. *Rheologica Acta*, 61, pp. 1-12.

BOSSIS, G., GRASSELLI, Y. et VOLKOVA, O. (2022). Discontinuous shear thickening (DST) transition with spherical iron particles coated by adsorbed brush polymer. *Physics of Fluids*, 34(11).

GRASSELLI, Y., BOSSIS, G., VOLKOVA, O. et CIFFREO, A. (2021). Tunable discontinuous shear thickening with MR suspensions. *Journal of intelligent Material Systems and Structures*, 32(12), pp. 1349-1357.

BOSSIS, G., VOLKOVA, O., GRASSELLI, Y., GUEYE, O. et CIFFREO, A. (2019). Discontinuous shear thickening in concentrated suspensions. *Philosophical Transactions A*, 337(2143).

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BOSSIS, G., GRASSELLI, Y., MEUNIER, A. et VOLKOVA, O. (2018). Tunable discontinuous shear thickening with magnetorheological suspensions. *Journal of intelligent Material Systems and Structures*, 29(1), pp. 5-11.

GRASSELLI, Y., BOSSIS, G., MEUNIER, A., VOLKOVA, O., MORINI, R. et ZUBAREV, A. (2017). Discontinuous shear thickening in the presence of polymers adsorbed on the surface of calcium carbonate particles. *Rheologica Acta*, 56, pp. 415-430.

BOSSIS, G., GRASSELLI, Y., MEUNIER, A. et VOLKOVA, O. (2016). Outstanding magnetorheological effect based on discontinuous shear thickening in the presence of a superplastifier molecule. *Applied Physics Letters*, 109, pp. 4.

GRASSELLI, Y., BOSSIS, G. et MORINI, R. (2015). Translational and rotational temperatures of a 2D vibrated granular gas in microgravity. *European physical journal*, 38, pp. 8.

GRASSELLI, Y., BOSSIS, G. et GOUTALLIER, G. (2009). Velocity-dependent restitution coefficient and granular cooling in microgravity. *Europhysics Letters*, 86(6).

BOSSIS, G., GRASSELLI, Y. et VOLKOVA, O. (2004). Granular rheology in zero-gravity. *Journal of Physics: Condensed Matter*, 16(18), pp. 3279-3287.

GRASSELLI, Y. et HERRMANN, H. (2001). Crater formation on a three dimensional granular heap. *Granular Matter*, 3, pp. 201-204.

GRASSELLI, Y., HERRMANN, H., ORON, G. et ZAPPERI, S. (1999). Shapes of heaps and in silos. *The European Physical Journal B - Condensed Matter and Complex Systems volume*, 10, pp. 673-679.

GRASSELLI, Y. et HERRMANN, H. (1998). Etude expérimentale sur la forme d'un tas de billes dans un silo bidimensionnel. *Granular Matter*, 326(1), pp. 61-67.

GRASSELLI, Y. et HERRMANN, H. (1998). Experimental study of granular stratification. *European Journal of Physics B*, 1, pp. 43-47.

GRASSELLI, Y. et LOBRY, L. (1997). Hydrodynamic interactions between a particle and two rigid walls : effects of surface roughness and many body hydrodynamic interactions. *Physics of Fluids*, 9(12), pp. 3929-3931.

GRASSELLI, Y. et HERRMANN, H. (1997). On the angles of dry granular heaps. *Physica A (Statistical Mechanics and its Applications)*, 246(3-4), pp. 301-312.

GRASSELLI, Y. et BOSSIS, G. (1995). Three-Dimensional Particle Tracking for the Characterization of Micrometer-Size Colloidal Particles. *Journal of Colloid and Interface Science*, 170(1), pp. 269-274.

BOSSIS, G., GRASSELLI, Y., LEMAIRE, E., PERSELLO, J. et PETIT, L. (1994). Phase separation and flow induced anisotropy in electrorheological fluids. *Europhysics Letters*, 25(5).

GRASSELLI, Y., BOSSIS, G. et LEMAIRE, E. (1994). Structure induced in suspensions by a magnetic field. *Journal de Physique II*, 4(2), pp. 253-263.

BOSSIS, G., CLERCX, H.G., GRASSELLI, Y. et LEMAIRE, E. (1994). Theoretical analysis of field induced structure in E.R. and M.R. fluids. *International Journal of Modern Physics B*, 8(20n21), pp. 2747-2763.

GRASSELLI, Y., BOSSIS, G. et LEMAIRE, E. (1993). Field induced structure in magnetorheological suspensions. *Progress in Colloid and Polymer Science*, 93, pp. 175-177.

BOSSIS, G., GRASSELLI, Y., LEMAIRE, E., MEUNIER, A., BRADY, J.F. et PHUNG, T. (1993). Rheology and microstructure in colloidal suspensions. *Physica Scripta*, T49A, pp. 37-47.

LEMAIRE, E., BOSSIS, G. et GRASSELLI, Y. (1993). Yield stress and structuration of magnetorheological suspensions. *Journal of Magnetism and Magnetic Materials*, 122(1-3), pp. 51-52.

LEMAIRE, E., GRASSELLI, Y. et BOSSIS, G. (1992). Field induced structure in magneto and electro rheological fluids. *Journal de Physique II*, 2(3), pp. 359-369.

Chapitres d'ouvrage

BINET, F., COSTE-MANIÈRE, I., DESCOMBES, C., GRASSELLI, Y. et OUEDERMI, D. (2019). Fast fashion and sustainable consumption. Dans: Subramanian Senthilkannan Muthu (ed.). *Fast Fashion, Fashion Brands and Sustainable Consumption. Textile Science and Clothing Technology*. 1st ed. Singapore: Springer, pp. 19-35.

AMOS, C.F., COSTE-MANIÈRE, I., GRASSELLI, Y. et BOYER, G. (2017). The Virtuous Circle: Hard Sustainable Science Versus Soft Unsustainable Science Within Marketing Functions of Fashion and Luxury Sectors and How to Prevent 'Soylent Green' from Happening. Dans: Subramanian Senthilkannan Muthu (ed.). *Textile Science and Clothing Technology : Implications in Textiles and Fashion*. 1st ed. Singapore: Springer, pp. 75-87.

GRASSELLI, Y., BOSSIS, G., MEUNIER, A. et VOLKOVA, O. (2017). Dynamics of a 2D vibrated model granular gas in microgravity. Dans: Michael Sakellariou (ed.). *Granular Matter*. 1st ed. Springer.

GRASSELLI, Y. et BOSSIS, G. (1998). Three dimensional optical particle tracking in colloidal suspensions. Dans: A. Milling (ed.). *Surface Characterization methods : Principles, Techniques and Applications*. 1st ed. Bosa Roca: Taylor & Francis.

Actes d'une conférence

BOSSIS, G., GRASSELLI, Y., MEUNIER, A. et VOLKOVA, O. (2016). Tunable discontinuous shear thickening with MR suspensions.

Présentations dans des conférences

GRASSELLI, Y., BOSSIS, G. et VOLKOVA, O. (2026). Rheological behavior of concentrated magnetic suspensions submitted to an oscillating shear flow. Dans: Int. Conference on Magnetic Fluids 17. Vienne.

GRASSELLI, Y., BOSSIS, G. et VOLKOVA, O. (2025). Jamming transition in magnetorheological suspensions made of iron and calcium carbonate particles. Dans: Int. Conf. ERMR 2025. Montreal.

GRASSELLI, Y., CIFFREO, A. et BOSSIS, G. (2020). Transition de blocage des écoulements de suspensions magnétiques en différentes géométries. Dans: GDR CNRS - MFA (Micropesanteur Fondamentale et Appliquée). Online (ZOOM).

GRASSELLI, Y., BOSSIS, G. et VOLKOVA, O. (2019). Discontinuous shear thickening in suspensions of ferromagnetic particles. Dans: International Conference on Magnetic Fuilds. Paris.

GRASSELLI, Y., BOSSIS, G. et VOLKOVA, O. (2019). Discontinuous Shear Thickening in concentrated suspensions: effect of gravity. Dans: GDR CNRS - MFA (Micropesanteur Fondamentale et Appliquée). La Rochelle.

VOLKOVA, O., GRASSELLI, Y. et BOSSIS, G. (2019). Analysis of discontinuous shear thickening controlled by a magnetic field under different flow geometries. Dans: International Conference on Electrorheological Fluids and Magnetorheological Suspensions. Wollongong.

GRASSELLI, Y., BOSSIS, G. et VOLKOVA, O. (2018). Discontinuous shear thickening and stick-slip oscillations tuned by a magnetic field. Dans: European Rheology Conference. Naples.

BOSSIS, G., GRASSELLI, Y. et CIFFREO, A. (2018). Percolation d'agrégats de particules et blocage d'écoulement de suspensions très concentrées. Dans: GDR CNRS - MFA (Micropesanteur Fondamentale et Appliquée). Marseille.

BOSSIS, G., GRASSELLI, Y. et MEUNIER, A. (2017). Tunable discontinuous shear thickening in a magnetorheological suspension. Dans: European Rheology Conference. Copenhagen.

BOSSIS, G., GRASSELLI, Y. et MEUNIER, A. (2017). Discontinuous shear thickening in the presence of superplasticizer molecules. Dans: European Rheology Conference. Copenhagen.

GRASSELLI, Y., BOSSIS, G. et VOLKOVA, O. (2017). Discontinuous shear thickening and slip-stick oscillations. Dans: GFR (Groupe Français de Rhéologie). Nice.

GRASSELLI, Y., BOSSIS, G. et VOLKOVA, O. (2017). Contrôle des phénomènes de blocage d'écoulement de suspensions très concentrées de microparticules en présence de fluidifiants. Dans: GDR CNRS - MFA (Micropesanteur Fondamentale et Appliquée). Fréjus.

BOSSIS, G., GRASSELLI, Y. et MEUNIER, A. (2016). Tunable discontinuous shear thickening with MR suspensions. Dans: International Conference on Electrorheological Fluids and Magnetorheological Suspensions. Incheon.

BOSSIS, G., GRASSELLI, Y. et MEUNIER, A. (2016). Contrôle des phénomènes de blocage d'écoulement de suspensions très concentrées de microparticules. Dans: GDR CNRS - MFA (Micropesanteur Fondamentale et Appliquée). Belgodère.

BOSSIS, G., GRASSELLI, Y. et MEUNIER, A. (2016). Transition de blocage en présence de superplastifiant dans les suspensions très concentrées. Dans: GDR CNRS MEPHY (Mécanique et Physique des Sytèmes Complexes). Marseille.

BOSSIS, G., GRASSELLI, Y. et MEUNIER, A. (2016). Discontinuous Shear Thickening controlled by a magnetic field. Dans: GFR (Groupe Français de Rhéologie). Lille.

GRASSELLI, Y., BOSSIS, G. et MORINI, R. (2015). Translational and rotational temperatures of a 2D vibrated granular gas in microgravity. Dans: Int. Conference " Granular Matter in Low Gravity ". Erlangen.

GRASSELLI, Y., BOSSIS, G. et MORINI, R. (2015). Abrupt shear thickening and stick-slip behavior of concentrated suspensions in the presence of fluidizer molecules. Dans: European Rheology Conference. Nantes.

BOSSIS, G., GRASSELLI, Y. et MEUNIER, A. (2014). Phénomènes de blocage et de stick-slip dans des suspensions très concentrées de microparticules en présence de fluidifiants. Dans: GDR CNRS - MFA (Micropesanteur Fondamentale et Appliquée). Carry le Rouet.

GRASSELLI, Y., BOSSIS, G. et MORINI, R. (2011). Equilibrium Temperature of a vibrated model granular medium. Dans: GDR CNRS - MFA (Micropesanteur Fondamentale et Appliquée). Fréjus.

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GRASSELLI, Y., BOSSIS, G. et MORINI, R. (2009). Intelastic properties of granular particles. Dans: GDR CNRS - MFA (Micropesanteur Fondamentale et Appliquée). Balaruc.

GRASSELLI, Y. et BOSSIS, G. (2008). Vibrated model granular media. Dans: GDR CNRS - MFA (Micropesanteur Fondamentale et Appliquée). Fréjus.

GRASSELLI, Y., BOSSIS, G. et AUDOLY, A. (2007). Rotationnal effects of model granular particles. Dans: GDR CNRS - MFA (Micropesanteur Fondamentale et Appliquée). Aussois.

GRASSELLI, Y., BOSSIS, G. et AUDOLY, A. (2006). Shear and flow of a granular gas in microgravity. Dans: GDR CNRS - MFA (Micropesanteur Fondamentale et Appliquée). Fréjus.

GRASSELLI, Y., BOSSIS, G. et AUDOLY, A. (2005). Sheared and vibrated granular gas. Dans: Proc. Int. Conf. TGF 05. Berlin.

GRASSELLI, Y., BOSSIS, G. et LEMAIRE, E. (2000). Yield stress and field induced structure in electro and magnetorheological suspensions. Dans: Electrorheological fluids.

GRASSELLI, Y. et HERRMANN, H. (1997). Shape of a granular heap in a two dimensional silo. Dans: GDR CNRS Dry granular materials. Paris.

GRASSELLI, Y., PETIT, L. et GONDRET, P. (1995). Mesures de coefficient de diffusion de particules colloïdales par suivi optique dynamique. Dans: Visualisation et traitement d'images en mécanique des fluides. St Etienne.

GRASSELLI, Y. et FERMIGIER, M. (1995). Fluctuations thermiques de chaînes de particules polarisées. Dans: Journées Physique Statisque. Paris.

GRASSELLI, Y., LEMAIRE, E. et BOSSIS, G. (1993). Dynamics of structure deformation and the rheology of electrorheological fluids. Dans: Meeting of the Soc. of Rheology. Boston.

GRASSELLI, Y., BOSSIS, G. et CLERCX, H.G. (1993). Analysis of field induced structures in electro and magnetorheological fluids. Dans: IVe Int. Conf. on E.R. Fluids. Bregenz. Bregenz.

GRASSELLI, Y., BOSSIS, G. et LEMAIRE, Y. (1992). Field induced structure in colloidal suspensions. Dans: E.C.I.S. Conf. - Graz (A). Graz.

GRASSELLI, Y., LEMAIRE, E. et PAPARODITIS, C. (1992). Yield stress and structuration of magnetorheological suspensions. Dans: VIe Int. Conf. on Magnetics Fluids. Paris (F). Paris.

GRASSELLI, Y., LEMAIRE, E. et BOSSIS, G. (1991). Induced structure in colloidal suspensions submitted to an electric or a magnetic field. Dans: European Colloid and interface conference. Mainz (D). Mainz.