

LIST OF PUBLICATIONS (REVIEWED)

Smart reactivity of the chemical cross-linking of gelatin by a thermo-sensitive polymer: an example of switchable reactivity,
C. Boudet, I. Iliopoulos, F. Monti, M. Cloitre & O. Poncelet, *Macromol. Symp.* **239**, 114-119, 2006.

Rheology of complex fluids by particle image velocimetry in microchannels,
G. Degré, P. Joseph, P. Tabeling, S. Lerouge, M. Cloitre & A. Ajdari, *Appl. Phys. Lett.* (accepted).

“Elastic Properties of Soft Pastes: Effect of Microstructure”,
J. R. Seth, M. Cloitre & R. T. Bonnecaze, *J. Rheol.* **50**, 353-376, 2006.
Selected to appear in: *Virtual Journal of Biological Physics Research* **11**, 2006.

Control of the chemical cross-linking of gelatin by a thermo-sensitive polymer: An example of switchable reactivity,
C. Boudet, I. Iliopoulos, O. Poncelet & M. Cloitre, *Biomacromolecules* **6**, 3073, 2005.

Tailoring the flow properties of soft colloidal dispersions
M. Cloitre, *Macromolecular Symposia* **229**, 99-106, 2005.

Phase behavior and viscoelastic properties of thermoplastic elastomer gels based on ABC triblock copolymers,
D. Yamaguchi, M. Cloitre, P. Panine, L. Leibler, *Macromolecules* **38**, 7798, 2005.

Making Polyurethane Foams from Microemulsions
C. Ligoure, M. Cloitre, C. Lechatelier, F. Monti, L. Leibler, *Polymer* **46**, 6402, 2005.

Slip and flow in pastes of soft particles: direct observation and rheology,
S.P. Meeker, R.T. Bonnecaze, M. Cloitre, *J. Rheol.* **48**, 1295-1320, 2004.

Slip and flow of soft particle pastes,
S.P. Meeker, R.T. Bonnecaze, M. Cloitre, *Phys. Rev. Lett.* **92**, n° 198302, 2004.

Annealing and defect trapping in lamellar phases of triblock terpolymers,
L. Corte, K. Yamauchi, F. Court, M. Cloitre, T. Hashimoto, L. Leibler, *Macromolecules* **36**, 7695, 2003.

An introduction to cellular plastics: materials, applications and challenges,
M. Cloitre, *in Cellular metals and metals foaming technology* (MIT Verlag, 2003).

Structure and flow behaviour of polyelectrolyte microgels,
M. Cloitre, R. Borrega, F. Monti, L. Leibler, *C.R. Physique* **4**, 221, 2003.

Glassy dynamics and flow properties of soft colloidal pastes,
M. Cloitre, R. Borrega, F. Monti, L. Leibler, *Phys. Rev. Lett.* **90**, 068303-1/4, 2003.

Orifice flow for measuring the elongational viscosity of semi-rigid polymer solutions,
A. Mongruel, M. Cloitre, *J. Non-Newtonian Fluid Mech.* **110**, 27, 2003.

Static and dynamic properties of highly turbid media determined by spatially-resolved diffusive-wave-spectroscopy,

F. Morin, R. Borrega, M. Cloitre, D. Durian, *Appl. Opt.* **41**, 1, 2002.

Rheological aging and rejuvenation in microgel pastes,

M. Cloitre, R. Borrega, L. Leibler, *Phys. Rev. Lett.* **85**, 4819, 2000.

Polyelectrolyte titration: theory and experiment,

Borukhov, D. Andelman, R. Borrega, M. Cloitre, L. Leibler, H. Orland, *J. Phys. Chem. B* **104**, 11027, 2000.

Concentration dependence of the low-shear viscosity of polyelectrolyte micro-networks : from hard spheres to soft microgels,

R. Borrega, M. Cloitre, I. Betremieux, B. Ernst, L. Leibler, *Europhys. Lett.* **47**, 729, 1999.

The shear viscosity of aligned suspensions of non-Brownian fibers,

M. Cloitre, A. Mongruel, *Rheol. Acta* **38**, 451, 1999.

Dynamics of non-Brownian rod-like particles in a non uniform elongational flow,

M. Cloitre, A. Mongruel, *Phys. Fluids* **11**, 1, 1999.

Delayed die-swell and sedimentation of elongated particles in wormlike micellar solutions,

M. Cloitre, T. Hall, C. Mata and D.D. Joseph, *J. Non-Newtonian Fluid Mech.* **79**, 157, 1998.

Experimental investigation and scaling analysis of die-swell in semi-dilute polymer solutions,

C. Allain, M. Cloitre, P. Perrot, *J. Non-Newtonian Fluid Mech.* **73**, 51, 1997

Viscosity and elastic modulus of fibril assembly of in vitro collagen with and without beads,

S. Newman, M. Cloitre, C. Allain, G. Forgacs, D. Beysens, *Biopolymers* **41**, 337, 1996.

Scaling of boundary-layer flows driven by double-diffusive convection,

A. Mongruel, M. Cloitre, C. Allain, *Int. J. Heat Mass Transfer* **39**, 3899, 1996.

Extensional flow of semi-dilute suspensions of rod-like particles through an orifice,

A. Mongruel, M. Cloitre, *Phys. Fluids* **7**, 2546, 1995.

Settling of clusters in aggregating colloidal suspensions,

C. Allain, M. Cloitre, F. Parisse, *J. Colloid Interface Sci.* **178**, 411, 1996.

Aggregation and sedimentation in colloidal suspensions,

C. Allain, M. Cloitre, M. Wafra, *Phys. Rev. Lett.* **74**, 1478, 1995.

Viscosity renormalisation in concentrated colloidal suspensions,

C. Allain, M. Cloitre, B. Lacoste, M. Marsone, *J. Chem. Phys.* **100**, 4537, 1994.

Billes sur l'eau,

C. Allain, M. Cloitre, *Pour la Science* **186**, 106, 1993.

The effects of gravity on the aggregation and gelation of colloids,

C. Allain, M. Cloitre, *Adv. Colloid Interface* **46**, 129, 1993.

Interaction between particles trapped at fluid interfaces: I Exact and asymptotic solutions for the force between two horizontal cylinders.

C. Allain, M. Cloitre, *J. Colloid Interface Sci.* **157**, 261, 1993.

Interaction between particles trapped at fluid interfaces: II Free energy analysis of the interaction between two horizontal cylinders.

C. Allain, M. Cloitre, J. Colloid Interface Sci. **157**, 269, 1993.

Die swell in semi-rigid polymer solutions,

C. Allain, M. Cloitre, P. Perrot, D. Quemada, Eur. J. Mech., B/Fluids **12**, 175, 1993.

The influence of gravity on the equilibrium and the growth of tenuous structures,

C. Allain, C. Amiel, M. Cloitre, M. Wafra, in *Fluids in Space* **353**, 341 (ESA Publications, 1992).

Sedimentation of colloidal suspensions in the presence of reversible aggregation,

C. Allain, M. Cloitre, M. Wafra, in *Physical Chemistry of Colloids and Intertaces in oil production*, 259 (Technip, 1992).

Scaling in flows driven by heat and mass convection in a porous medium,

C. Allain, M. Cloitre, A. Mongruel, Europhys. Lett. **20**, 331, 1992.

Characterizing the lacunarity of random and deterministic fractal sets,

C. Allain, M. Cloitre, Phys. Rev. A **44**, 3552, 1991.

Capillary aggregation at an interface,

C. Allain, M. Cloitre, in *Universalities in Condensed Matter* (Springer Proc. Phys., Springer, 1988).

Analytic Matrixes of Science Organization,

T. Shinn, M. Cloitre, Sociologia e ricerca sociale **24**, 83, 1987.

Spatial spectrum of a general family of self-similar arrays,

C. Allain, M. Cloitre, Phys. Rev. A **36**, 5751, 1987.

Enclavement et diffusion du savoir,

M. Cloitre, T. Shinn, Informations sur les Sciences Sociales **25**, 161, 1986.

Phénomènes d'agrégation de particules sur une interface, induits par interaction capillaire, à deux dimensions,

M. Cloitre, Thèse de doctorat ès sciences (Université Paris VI, 1989).

Horizontal cylinders at an interface : equilibrium, shape of the meniscus and capillary interaction,

C. Allain, M. Cloitre, Ann. Phys. **13**, 141, 1988.

Characterizing the lacunarity of random and deterministic fractal sets,

C. Allain, M. Cloitre, Phys. Rev. A **44**, 3552, 1991.

Diffraction properties of recursive surface fractals.

C. Allain, M. Cloitre, Physica A **157**, 352, 1989.

Diffraction properties of recursive surface fractals.

C. Allain, M. Cloitre, Physica A **157**, 352, 1989.

Optical diffraction on fractals,

C. Allain, M. Cloitre, Phys. Rev. B **33**, 3566, 1986.

Applications of Forced Rayleigh Scattering to hydrodynamics measurements,
J.C. Charmet, M. Cloitre, M. Fermigier, E. Guyon, P. Jenffer, L. Limat, L. Petit, IEEE Journal of Quantum Electronics **QE22**, 1461, 1986.

Forced Rayleigh Scattering in turbulent plane Poiseuille flows,
M. Cloitre, E. Guyon, J. Fluid Mech. **164**, 217, 1986.

Experimental study of two-dimensional aggregation,
C. Allain, M. Cloitre, in *Fractals in Physics*, 283 (Elsevier Science Publishers, 1986).

Fourier transforms of fractals,
C. Allain, M. Cloitre, in *Fractals in Physics*, 61 (Elsevier Science Publishers, 1986).

Expository Practice : social and epistemological linkage,
M. Cloitre, T. Shinn, in *Expository Science : Forms and functions of popularisation*, 31 (D. Reidel Publishing Company, 1985).

Diffraction on fractals,
C. Allain, M. Cloitre, in *Scaling Phenomena in disordered matter*, Nato Asi Series **133**, 193, 1985.

Metal dithizonate for flash photolysis applications in hydrodynamics,
M. Cloitre, M. Chauveau, Opt. Commun. **47**, 42, 1984.

An experimental study of turbulent pair diffusion for pure liquids and polymer solutions,
M. Cloitre, M. Fermigier, P. Jenffer, L. Limat, C. Allain, E. Guyon, Ann. N.Y. Acad. Sci. **404**, 87, 1982.

Etude expérimentale du champ de gradient de vitesse dans un écoulement de Poiseuille turbulent,
M. Cloitre, *Thèse de Doctorat de Spécialité*, Université Paris VI, 1982.

Sur une mesure en laboratoire de diffusivités thermiques et massiques,
E. Guyon, P. Jenffer, A. d'Arco, M. Cloitre, Eur. J. Phys. **2**, 193, 1982.

Technique de marquage d'écoulements par utilisation de molécules photochromes,
A. d'Arco, J.C. Charmet, M. Cloitre, Revue Phys. Appl. **17**, 89, 1982.

Applications de la diffusion Rayleigh Forcée à l'étude d'écoulements laminaires et turbulents,
M. Fermigier, M. Cloitre, E. Guyon, P. Jenffer, *J. Méca. Théo. Appl.* **1**, 1, 1982.

INVITED CONFERENCES

How do colloidal pastes flow?,

1st French-Brazilian Conference (Florianopolis, Brésil, 2005).

Probing the dynamics of soft solids with DWS and Video-microscopy,

« Waves in soft matter and granular media » (Paris, 2004).

Slip and flow of soft particle pastes,

HUSC Conference « From Hard to Ultrasoft Colloids: Colloids and Polymeric assemblies near to and far from equilibrium » (Heraklion, Crète, 2004).

Rheology of pasty materials,

Thermo Electron France (Paris, 2003).

An introduction to cellular plastics: materials, applications and challenges,

3rd International Conference « Cellular Metals and Metal Foaming Technology » (Berlin, Germany, 2003).

Flow and structure of frustrated block copolymers,

12th ESRF Meeting « Fibres and polymers » (Grenoble, France, 2002).

Glassy dynamics in pastes,

« Wave Scattering in Complex Media » (Université de Marne la Vallée, Champs sur Marne, France, 2001).

Non-linear rheology in pastes,

Gordon Research Conference « Polymer Physics » (New-London, USA, 2000).

From Polymers to Colloids: Glassy Dynamics in Polyelectrolyte Microgels,

Winter School « Structure and Dynamics of Polymer and Colloidal Systems » (Les Houches, France, 1999).

Wall slip and flow structure in concentrated suspensions,

Meeting on « Multiphase Flows » in the Honour of Professor D.D. Joseph (Philadelphie, USA, 1999).

Polyelectrolyte microgels,

Bayreuth Polymer and Materials Research Symposium « Polymeric functional and structural materials » (Bayreuth, Germany, 1999).

Glassy dynamics in soft colloids : aging, yielding and flow,

Meeting of the British Society of Rheology « Partners in Rheology » (Ilkley, Great Britain, 1998).

Verres colloïdaux mous : écoulement, vieillissement, fracture,

18^{ème} Rencontre MIAM (CARRY le Rouët, France, 1998).

Dynamics of anisotropic particles in flows,

Cecam Meeting « Granular Geomorphology » (Lyon, France, 1998).

Elongational flows,

ESRF-ILL Meeting « Soft Matter under Flow as probed by Small Angle Scattering » (Grenoble, France, 1998).

Yielding and flow in suspensions of soft colloids,
WE-Heraeus-Seminar « Structured Polymer Systems: Self-assemblies, Hetero-polymers
and Networks » (*Bad Honnef, Germany, 1998*).

Dynamical properties of soft colloids,
Winter School « Dynamical networks in Physics and Biology » (*Les Houches, France,*
1997).

Extrusion instabilities in micellar solutions,
International Symposium « Lubricated Transport of Viscous Materials » (*Trinidad & Tobago,*
1997).

Capillary aggregation at an interface,
Winter School « Universalities in Condensed Matter Physics » (*Les Houches, France, 1988*).