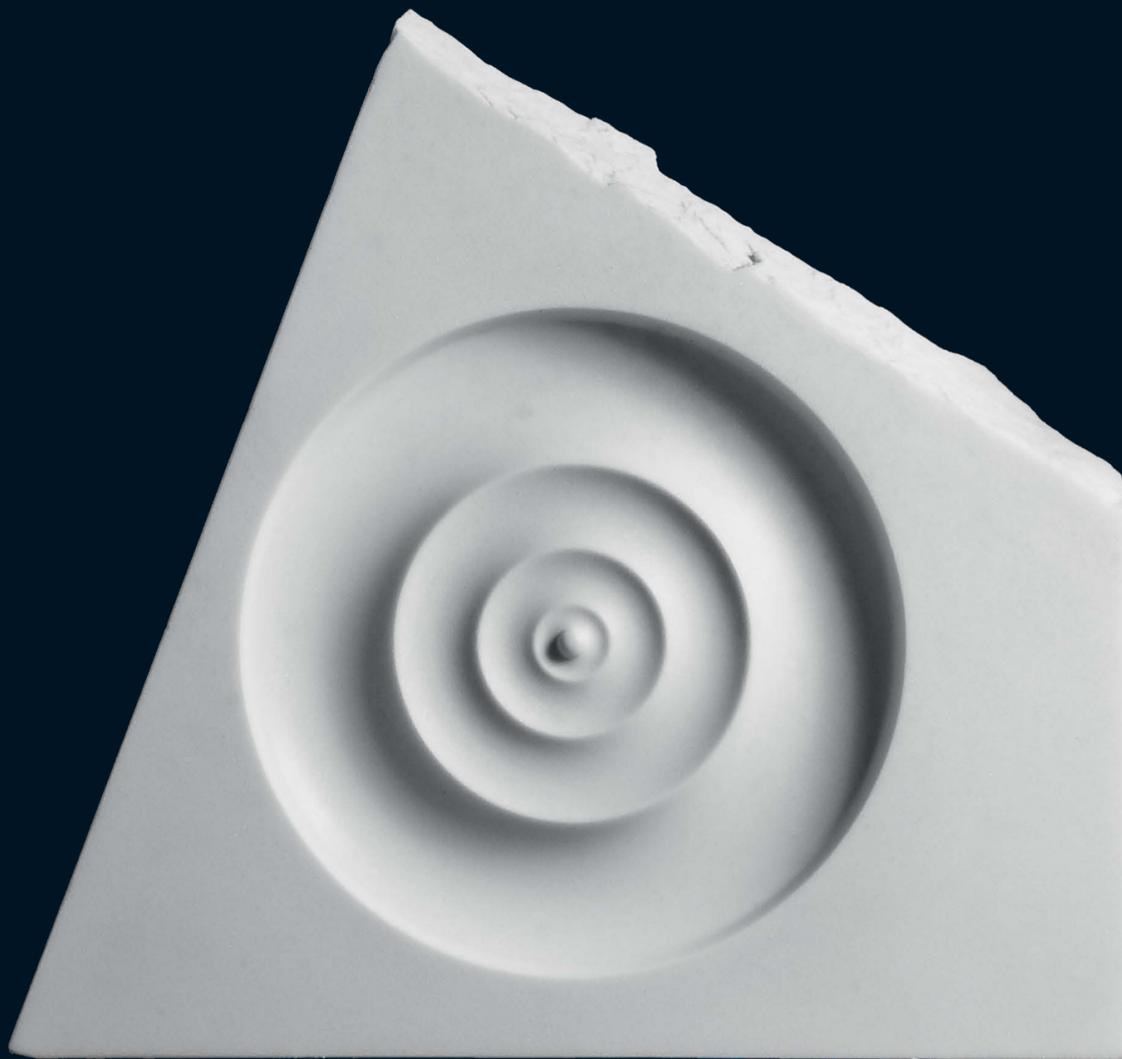


KARL WEISSENBERG (1893-1976)

Karl Weissenberg was born in Vienna, Austria, in 1893. He studied at the Universities of Vienna, Berlin and Jena, majoring in mathematics, but also attending lectures in physics and chemistry as well as law and medicine. At the age of 23, he obtained a PhD in Mathematics from the University of Jena. His teaching and research activities covered an unusually wide range of disciplines. Weissenberg published over 70 original papers on the most varied of subjects, including, in Mathematics, the analysis of symmetry groups as well as tensor and matrix algebra, and, in Medicine, on new methods for the measurement of blood-circulation and the application of X-rays in cancer treatment. His main contributions, however, were in X-ray Crystallography and in Rheology. In 1922, he joined the Kaiser-Wilhelm Institut für Faserstoffchemie in Berlin and developed methods for the determination of the constitution and crystallographic structure of solids of all kinds. His work culminated in the design of the "Weissenberg X-ray Goniometer", an instrument which allowed for the first time a unique determination of the crystallographic structure in three-dimensional space. Weissenberg became Scientific Adviser, Kaiser Wilhelm Gesellschaft, in 1925, and Professor of Physics, Berlin University, in 1932. Parallel to his interests in crystallography, Weissenberg developed an interest in the new field of Rheology. He predicted various effects, which were at the time paradoxical, on the flow of fluids and he verified them experimentally. Best known is the so-called "Weissenberg Effect": Visco-elastic materials subjected to torsional movements

by a rotating rod develop normal forces which make them climb up on the rod. Using dimensional analysis, he introduced a dimensionless number representing the ratio of elastic to viscous effects, which later became known as the "Weissenberg number". In 1933, Weissenberg became a refugee and took up residence in the UK, where he concentrated on his rheological interests. He designed a new type of measuring instrument, known as the "Weissenberg Rheogoniometer", which allowed for the first time the measurement of the development of material stresses during shear flow in all three directions of space. He worked for government and industrial research institutions in Britain, and held a number of consultancies to industry in Britain and the United States. As Weissenberg liked to explain in his later years, his dedicated interest in combining theory and experiment goes back to advice from Albert Einstein: When Weissenberg came to Berlin in 1922, he went to see Einstein to ask for guidance on his scientific career. Einstein, who, as Weissenberg reported, was preoccupied at the time of their meeting with other business, replied briefly "Bauen Sie Instrumente! (You should built instruments!)", an advise taken up well by Weissenberg! Karl Weissenberg had the reputation of "being an entirely engaging and unselfish person", of "being a delightful companion, and ever helpful friend and also an excellent tennis player". He retired in The Netherlands. An obituary, written at the time of his death in 1976, concluded that "he was notable in his scientific achievements and noble in his personal qualities".



award



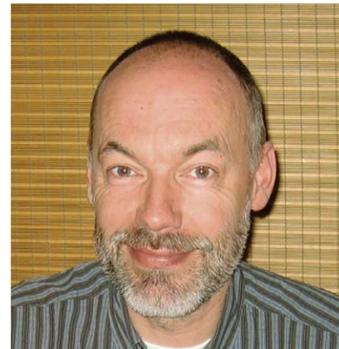
Weissenberg



K. Weissenberg



Pino Marrucci



Roland Keunings



Manfred Wagner

THE ESR WEISSENBERG AWARD

In commemoration of the scientific achievements of Karl Weissenberg, performed in several European countries, the European Society of Rheology (ESR) decided in 1997 to create a "Weissenberg Award" for outstanding, long-term achievements in the field of rheology. Eligible are rheologists whose centre of scientific activities lies in Europe.

The award is bestowed biannually, and past recipients of the Award have been:

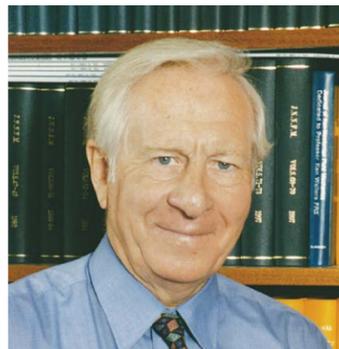
- Giuseppe (Pino) Marrucci (1998)
- Hans Martin Laun (2000)
- Ken Walters FRS (2002)
- Roland Keunings (2005)
- Thomas CB McLeish (2007)
- Ole Hassager (2009)
- Manfred H. Wagner (2011)



Martin Laun



Tom McLeish



Ken Walters



Ole Hassager



MICHAEL CATES

MICHAEL CATES, WEISSENBERG AWARDEE 2013

Michael Cates studied physics at Cambridge University. After graduating with First Class Honors (1982), he pursued and completed his PhD studies (1985) at Cavendish Laboratory working with Prof. Sir Sam Edwards. After two highly successful postdoctoral stays in US (Exxon and ITP), he returned to Cambridge in 1988 as Trinity College Teaching Fellow and University Lecturer. In 1995 he was appointed to Chair of Natural Philosophy at the School of Physics, University of Edinburgh. Since 2007 he holds a Royal Society Professorship. His key role in making the Edinburgh group a world-leading center in soft matter physics and rheology is well-known.

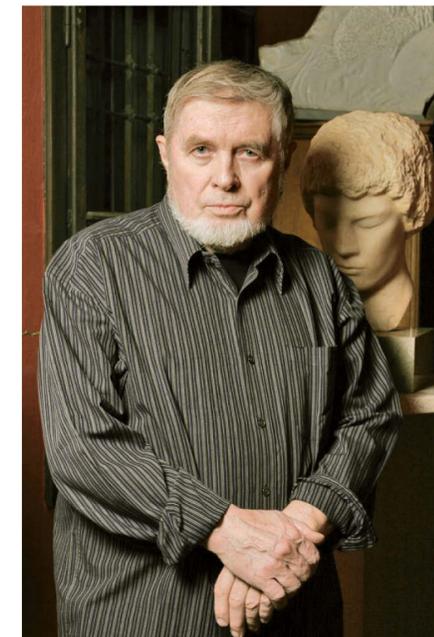
His ever lasting impact on rheology is well-known to and appreciated by our community. There is no rheologist who does not know the name Cates and has not come across at least some of his papers.

He has published over 280 papers, 14000 citations, an impressive h index of 65, over 120 invited talks, several named lectures, an array of students and postdocs pursuing successful careers. In addition, he is very frequent lecturer (and a very excellent one) in various short courses. He is a very active member of our community as well as the broader soft matter community, serving or having served in several organizations, committees and journals and having organized/co-organized meetings. His pioneering work has already been recognized, most recently by the Institute of Physics Dirac Medal and Prize, 2009) the Society of Rheology (best paper award for Journal of Rheology, 2010), the British Society of Rheology (Gold Medal, 2009) and the Royal Society (FRS, 2007).

Mike is known for his landmark contributions in several key areas of rheology. They include the linear and nonlinear rheology of surfactants (key idea being the reversible chain scission) and dense colloidal suspensions suspensions (for example the occurrence of shear banding). His ideas of soft glassy rheology based on the trap model and the development, with colleagues, of first-principles constitutive equations based on mode coupling theory have set the stage for an unprecedented activity (experiments, simulations and theory) in the rich field of colloidal glasses and gels. In addition, Mike has made seminal contributions in many other areas of great scientific and technological significance such as polymer brushes, shear-induced transitions, theory of gelation, associating polymers, granular media, conformation of ring polymers, comparison of arrested states (glasses and gels), viscoelasticity of smectic phases, rheo-chaos, jammed particles at interfaces ("bijels") and emulsions stability, crystallization of colloidal glasses, and more recently the mechanics of living colloids (bacteria). In each of these areas Mike's contributions shape in large the field. Consider for example the rheology and mechanics of active fluids. This area of research was virtually non-existent in rheology community until very recently. Mike masterfully brought together elements of rheology, statistical mechanics and biological physics of these systems, while at the same time he made strong links with experimentalists and challenged them for new evidence. As a result, he has been and remains the dominant force behind a fast emerging exciting new area in our science.

JANEZ PIRNAT

WEISSENBERG AWARD SCULPTOR



Sculptor Janez Pirnat was born in Ljubljana, Slovenia, on September 25, 1932. His father, Nikolaj Pirnat, was a renowned author, illustrator, graphic artist, painter and sculptor who taught at the Ljubljana Academy of Art. His mother, Nada Kraigher, was a writer. It was his father who, until his death, gave Janez his first lessons in drawing and modelling, which were then continued in the workshop of sculptor Jakob Savinšek. After grammar school, he took up the study of architecture and later on the study of sculpture at the Ljubljana Academy, from which he graduated in 1959. He continued his studies at the special school of sculpture and later at the Institute of Sociology and Philosophy in Ljubljana. He finished

his studies with a thesis on the »Slovene Impressionism in the Work of Ivan Grohar« (1964). He then took part in the launching of »Problemi«, a cultural and sociological magazine, and was its chief editor for two years. He travelled widely in Italy, France, Switzerland, Germany, Belgium, the Netherlands and the former Soviet Union. In 1967 he received a grant from the Ford Foundation and spent a year working in the United States.

In 1959, he set up an open-air studio at Sipar, near Umag, Croatia. Since then he has been a regular visitor to the Istrian quarries spending the major part of the year in Istria. Between autumn 1963 and spring 1964 he helped organize the artists' colony in a picturesque town of Grožnjan, and in autumn 1964 he sculpted his »Noše« (a series of National Costumes) in this beautiful medieval setting.

Pirnat had his first public exhibition in Idrija in 1951. Since then, he has had several solo exhibitions in Ljubljana and in nearly all principal cities of the former Yugoslavia.

He also held one-man exhibitions abroad: Paris (1970), Udine (1972), Brussels (1970, 1973 and 1977), Bayreuth (1980), Zürich (1982), Gorizia (1983) and Trieste (1984).

He has taken part in collective exhibitions at home and abroad. Every year since 1985, he opens the door of his studio in Ljubljana for a whole week in December, where he organizes an exhibition for a selected guest and also exhibits his own latest works.

His larger sculptures and monuments have been erected in Ljubljana, Celje, Kanal by Soča, Nova Gorica, Idrija, Prevoje near Domžale, Portorož, Umag and Lipica. His work can also be found in public and private collections at home and abroad. In 1966, he was awarded second prize at the Belgrade Book Fair for illustrations of the poems by Li Tai Po. In 1979, he received the Award of the Insurrection of the Slovene People for Sculpture and in 1984 the Župančič Award of the City of Ljubljana, also for his sculptural work.

He lives and works in Ljubljana and at Sipar in Istria (Savudrija).



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