

Curriculum vitae of Roland Keunings

Personal data

- Born June 27, 1957. Married to Françoise Jamart, father of Raphaël (1982), Xavier (1985) and Benjamin (1991), grandfather of Zoé (2009).
- E-mail: roland.keunings@uclouvain.be
- Homepage: <http://perso.uclouvain.be/roland.keunings/>

Current positions

- Full Professor (since 1996), Louvain School of Engineering, ICTEAM Institute, Université catholique de Louvain (UCL), Belgium.
- Member of the Royal Academy of Belgium.
- Editor-in-Chief of the Journal of Non-Newtonian Fluid Mechanics.
- Invited Professor (since 2001), K.U. Leuven, Belgium.

Education

- Ph.D. in Engineering Science, UCL (1982).
- Master's degree in Mathematical Engineering, UCL (1979), with the highest distinction.

Previous positions

- Prorector for Research, UCL (2004–09).
- Sabbatical leave at the University of Cambridge, UK. *Visiting Scholar*, Dept. of Applied Mathematics and Theoretical Physics (Sept.–Dec. 1995), and *Resident Participant*, Research Programme “Dynamics of Complex Fluids”, Isaac Newton Institute for Mathematical Sciences (Jan.–Jul. 1996).
- Invited Professor, Ecole Supérieure de Plasturgie, Oyonnax, France (1992–97).
- Lecturer, Division of Applied Mechanics, UCL (1988–95).
- Divisional Fellow, Center for Advanced Materials, Lawrence Berkeley Laboratory, University of California, Berkeley, USA (1985–88).
- Research Fellow, Miller Institute for Basic Research in Science, University of California, Berkeley, USA (1983–84).
- Research Assistant, Division of Applied Mechanics, UCL (1979–83).

Teaching

- Bachelor's level: mathematics, numerical analysis.
- Master's level: rheology of complex fluids, numerical simulation in polymer processing, mechanics of composite materials, elasticity theory, theory of plates and shells, finite element methods, parallel scientific computing, computer aided design in mechanical engineering, projects of mechanical design.
- Ph.D. level: Founding Director (1998–2000) of the Belgian Graduate School in Mechanics (GRASMECH), Co-Promotor (1991–2001) of the European Masters in Polymers and Composites Engineering (EUPOCO).

Research

- Generic topics: mathematical modelling and numerical simulation of rheologically-complex fluids, micromechanical modelling of composite materials, parallel scientific computing for non-linear finite element problems.
- Principal Investigator for 16 research contracts at UCL since 1988, including the Concerted Research Actions *Micro-Macro Approach in Computational Rheology* (1997–2002) and *Dynamics of Entangled Macromolecular Fluids* (2003–2008).
- Author of 150 research publications.
- Bibliometry of journal papers (ISI data) : 1720 citations, h-index = 23.
- Conference presentations: 26 plenary and keynote lectures, 42 invited lectures, and 161 communications.
- Invited seminars in 45 research institutions.
- For more information (downloadable publications, list of publications and conferences), see <http://perso.uclouvain.be/roland.keunings/>

Service to UCL and the *Académie universitaire Louvain* (AuL)

- As UCL's Prorector for Research (2004–09):
 - Research Council, Chair,
 - Patents Management Committee, Chair,
 - Scientific Park Committee, Chair
 - AuL's Doctoral Studies Committee, Chair,
 - AuL's Research Councils Platform, Chair,
 - AuL's « *Plan Marshall Wallon* » Committee, Chair,
 - Rectoral Council, Member,
 - Academic Council, Member,
 - Board of Directors, Member,
 - Investment Committee, Member,
 - Technology Transfer Committee, Member,
 - External Resources Management Committee, Member,
 - Board of Directors of the Cyclotron Research Center, Member,
 - Board of Directors of SOPARTEC, UCL's Technology Transfer Office, Member.
- Prospective Advisory Group « UCL 2012 », Member (2003–04).
- Engineering Doctoral Studies Committee, Chair (2000–04).
- CESAME Research Center, Chair (2000–02).
- Division of Applied Mechanics, Head (1993–96).
- UCL's High-Performance Scientific Computing Project, Director (1989–96).
- UCL's Computing Services Advisory Committee, Member (1989–95).

Service outside UCL

- Successively: Member of the Editorial Board (1998–99), Associate Editor (2000–03), Co-Editor (2004–09) and Editor-in-Chief (since 2010) of the *Journal of Non-Newtonian Fluid Mechanics*, the premier scientific journal in the field.
- As UCL's Prorector for Research (2004–09):

- Inter-university Coordination Committee « *Plan Marshall Wallon* » in charge of the development of the Region's Competitvity Clusters, Chair,
- Board of Directors of the *Fonds National de la Recherche Scientifique* (FNRS), Member,
- FNRS Doctoral Schools Committee, Member,
- Board of Directors of the CERTECH Research Center, Member,
- Board of Directors of the CETIC Research Center, Member,
- Board of Directors of the BLOWIN Competitvity Cluster, Member,
- *Comité de pilotage des Pôles d'Attraction Interuniversitaires de la Politique Scientifique Fédérale*, Member,
- Scientific Committee of the *Société de Développement pour la Région de Bruxelles-Capitale* (SDRB), Member.
- Editorial Board of *Rheologica Acta*, Member (since 2001).
- FNRS Evaluation Committee « *Electricité et Mécanique* », Member (2000–05).
- Evaluation of about 15 research proposals submitted to various Funding Agencies: National Science Foundation (USA), Natural Sciences and Engineering Research Council of Canada, Danish Technical Research Council, Swedish Research Council.
- Chair or Co-Chair of about 20 international conferences.
- Member of the *Ad hoc* Committee of the *CNRS* (France) in charge of the evaluation of the *Laboratoire de Rhéologie*, Université de Grenoble (2005).
- Belgian Delegate to the European Society of Rheology (2000–04), and to the Union of Theoretical and Applied Mechanics (1996–2004).
- Chair of the Belgian Group of Rheology (1992–95, second term 1999–2004).
- Member (1996–2004) and Chair (1996–2000) of the *Comité National de Mécanique Théorique et Appliquée*, Royal Academy of Belgium.
- Member of the *Ad hoc* Committee of the Danish Technical Research Council in charge of the evaluation of the Danish Polymer Centre (2002).
- Technological audit of a numerical simulation software company for the *Division de la Recherche du Ministère de la Région Wallonne* (1991).
- Member of the *Ad hoc* Committee of the Natural Sciences and Engineering Research Council of Canada, in charge of the evaluation of several research proposals from the Université Laval, Québec (1986–91).
- Delegate of the Center for Advanced Materials to the Computing Services Advisory Committee, Lawrence Berkeley Laboratory, Berkeley, USA (1985–87).
- Member of the Panel on Computer-Assisted Process and Control Engineering, National Research Council of the US Academy of Sciences, whose mission was to identify future directions in the field (1985).

Awards and honours

- Elected Member of the Royal Academy of Belgium (2009).
- *The Weissenberg Award of the European Society of Rheology* (2005), “in recognition of his outstanding contributions to the Science of Rheology”. This award is granted by the ESR every 2 or 3 years since 1998.
- *Exxon Chemical Science and Engineering Award* (1992), for his work between 1978 and 1992 on the modelling and numerical simulation of polymer flow.
- *Research Fellowship of the Miller Institute for Basic Research in Science*, University of California, Berkeley, USA (1983), for his Ph.D. thesis on viscoelastic flow simulation.
- Among the *plenary and keynote lectures* delivered by R. Keunings, particularly notable is his Plenary Lecture “A Survey of Computational Rheology” delivered at the Opening Session of the XIIIth International Congress on Rheology, Cambridge, UK (2000). The ICR is the main international conference on rheology, held every 4 years.