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1964 -1969

- R. Kronig, G. Ooms and P.J. Rijnierse
On the displacement of the energy levels of atomic systems in strong radiation fields; Det Kongelige Norske Videnskabers Selskabs Forhandlinger 37 (1964) 63-68.
- G. Ooms
The modes of an open resonator with plane circular mirrors; Applied Scientific Research 19 (1968) 198-212.
- G. Ooms
On the electromagnetic theory of the modes of an open resonator with plane circular mirrors; Optik 27 (1968) 426-437.
- G. Ooms
On the polarization state of an open resonator with plane circular mirrors; Optik 29 (1969) 410-415.

1970 -1979

- G. Ooms and H.L. Beckers
The flow of a rigid core surrounded by an annular liquid layer through a horizontal tube; Applied Scientific Research 26 (1972) 312-334.
- G. Ooms
The hydrodynamic stability of core-annular flow of two ideal liquids; Applied Scientific Research 26 (1972) 147-158.
- G. Ooms
Fluid-mechanical studies on core-annular flow; Thesis Technische Hogeschool Delft, 1971.
- G. Ooms, P.F. Mijnlieff and H.L. Beckers
Frictional force exerted by a flowing fluid on a permeable particle, with particular reference to polymer coils; Journal of Chemical Physics 53 (1970) 4123-413
- P.F. Mijnlieff, W.J.M. Jaspers, G. Ooms and H.L. Beckers
Information for the permeability of polymer coils in solution determined directly by ultracentrifugation; Discussion of The Faraday Society, 1970.
- G. Ooms, H.L. Beckers and P.F. Mijnlieff
A new approach to the calculation of frictional coefficients of polymer molecules in solution; IUPAC International Symposium on Macromolecules, Leiden, 1970.
- G. Ooms
A new method for the calculation of the plume path of gases emitted by a stack; Atmospheric Environment 6 (1972) 899-909.

- G. Ooms
A new method for the calculation of the plume path of gases emitted by a stack; VDI- Berichte Nr. 200 (1973) 35-43.
- Werkgroep Verspreiding Grondemissies; Verspreiding grondemissies in het stedelijk gebied; Toekomstbeeld der Techniek, Mens en Milieu deel 2, s-Gravenhage, 1973.
- G. Ooms, A.P. Mahieu and F. Zelis
The plume path of vent gases heavier than air; First International Symposium on Loss Prevention and Safety Promotion in the Process Industry, The Hague, 1974.
- G. Ooms and M. Wicks
Concentration fluctuations in a turbulent jet; Applied Scientific Research 30 (1975) 381-399.
- G. Ooms, G. Groen, D.P. de Graag and J.F. Ballintijn
On turbulent pipe flow with heat transfer and chemical reaction; Chemical Engineering Science 33 (1978) 357-363.
- G. Ooms, G. Groen, D.P. de Graag and J.F. Ballintijn
On turbulent pipe flow with heat transfer and chemical reaction; Sixth International Heat Transfer Conference, Toronto, 1978.
- G. Ooms
Coherente structuren in turbulente stromingen; Delftse Universitaire Pers, Delft, The Netherlands, 1979.
- G. Ooms
Coherente structuren in turbulente stromingen; De Ingenieur 91 (1979) 681-686.

1980 -1989

- G. Ooms and A.P. Mahieu
A comparison between a plume path model and a virtual point source model for a stack plume; Applied Scientific Research 36 (1980) 339-356.
- G. Ooms and A.P. Mahieu
A comparison between a plume path model and a virtual point source model for a stack plume; Seminar on Modelling Techniques for Air Pollution, Genova, 1979.
- T.J. Sluman, H.R.E. van Maanen and G. Ooms
Atmospheric boundary layer simulation in a wind tunnel using air injection; Applied Scientific Research 36 (1980) 289-307.
- G. Ooms, A. Segal and A.J. van der Wees
Core-annular flow of a high-viscosity core and a low-viscosity annulus through a horizontal tube; Fifteenth International Congress of Theoretical and Applied Mechanics, Toronto, 1980.
- R.V.A. Oliemans and G. Ooms
Core-annular flow of oil and water through a pipeline; Multiphase Science and Technology, volume 2, Hemisphere Publishing Corporation, 1986.
- G. Ooms, A. Segal, A.J. van der Wees and R.V.A. Oliemans
Core-annular flow of a very viscous oil core and a water annulus through a horizontal pipe; Int. J. Multiphase Flow 10 (1984) 41-60.
- G. Ooms and F.G.J. Absil
On the suspension mechanism of small heavy particles in a horizontal turbulent boundary layer flow, pipe flow or channel flow; Third Austrian-Italian-Yugoslav Chemical Engineering Conference, Graz, 1982
- H. Fondse, H. Leijdens and G. Ooms
On the influence of the exit conditions on the development of a free, round, turbulent jet; Applied Scientific Research 40 (1983) 355-375.
- G. Ooms and N.J. Duijm
Dispersion of a stack plume heavier than air; IUTAM Symposium on Atmospheric dispersion of Heavy Gases and Small Particles, Delft, 1983.
- J.M.G. Kunen, G. Ooms and P.J.J. Vink
On detection methods for coherent structures in turbulent flows; Eighth Biennial Symposium on Turbulence, Rolla, 1983.
- G. Ooms, A. Segal, S.Y. Cheung and R.V.A. Oliemans
Propagation of long waves of finite amplitude at the interface of two viscous fluids; Int. J. Multiphase Flow 11 (1985) 481-502.

- G. Ooms and H. Tennekes
Atmospheric dispersion of heavy gases and small particles;
Springer Verlag, 1984.
- A.S. Bos and G. Ooms
Particle collision theories applied to agglomeration in suspension;
Applied Scientific Research 42 (1985) 265-277.
- A.M. Talmon, J.M.G. Kunen and G. Ooms
Simultaneous flow visualization and Reynolds stress measurement
in a turbulent boundary layer; J. Fluid Mech. 163 (1986) 459-478.
- H. Visscher, A.K. Chesters, J.C. van Muiswinkel and G. Ooms
Theoretical and experimental investigation of the signal from a resistivity
probe in a two-phase flow; Meeting of the EFChE Working Party Multiphase
Fluid Flow, Wien, 1984.
- R.V.A. Oliemans, G. Ooms, H.L. Wu and A. Duijvestijn
Core-annular oil-water flow: the turbulent-lubricating-film model and
measurements in a 2-inch pipe loop; SPE Middle East Oil Technical
Conference and Exhibition, Bahrain, 1985.
- Li Xiao-Yun, H.L. Leijdens and G. Ooms
An experimental verification of a theoretical model for the dispersion of stack
gases heavier than air; Atmospheric Environment 20 (1986), 1087-1094.
- R.V.A. Oliemans, G. Ooms, H.L. Wu and A. Duijvestijn
Core-annular oil-water flow: the turbulent-lubricating-film model and
measurements in a 2-inch pipeloop; Int. J. Multiphase Flow 31 (1987), 23-31.
- R.A. van Santen, J. Keijsper, G. Ooms and A.G.T.G. Kortbeek
Role of interfacial energy in zeolite sysnthesis; Seventh International
Zeolite Conference, Tokyo, 1986.
- G. Ooms and R.A. van Santen
On the relative stabilities of zeolitic silicas; Recl. Trav. Chim. Pays-Bas
106 (1987) 69-71.
- F.G.J. Absil and G. Ooms
The entrainment of particles by a turbulent spot in a laminar boundary layer;
First European Turbulence Conference, Lyon, 1986.
- G. Ooms, R.A. van Santen, J. den Ouden, R.A. jackson and C.R.A. Catlow
On the relative stabilities of zeolitic aluminosilicates; J. Phys. Chem. 92
(1988) 4462- 4465.
- G. Ooms, R.A. van Santen, R.A. Jackson and C.R.A. Catlow
The relative stability of zeolite frameworks; International Symposium
on Innovation in Zeolite Materials Science, Nieuwpoort, 1987.
- J.J.M. Geraets, A.K. Chesters and G. Ooms
Centrifugal scaling of isothermal gas-liquid flow in horizontal tubes;
Yugosl Congress of Chemical Engineering, Dubrovnik, 1987.
- G. Ooms, R.A. van Santen, P.H.M. Budzelaar, P.W.N.M. van Leeuwen and
E. Drent
Two centre repulsion energy effects in carbon-monoxide and ethylene
insertion reactions; to be submitted to Recl. Trav. Chim. Pays-Bas.
- R.A. van Santen, G. Ooms, C.J.J. den Ouden, B.W. van Beest and M.F.M.
Post
Computational studies of zeolite framework stability; Shell Conference
on Computer-Aided Molecular Modelling, Hoenderloo, 1987.
- R.A. van Santen, G. Ooms, C.J.J. den Ouden, B.W. van Beest and M.F.M.
Post
Computational studies of zeolite framework stability; National ACS
Meeting on Advances in Zeolite Synthesis, Los Angeles, 1988.
- G. Ooms, P.H.W.M. Daverveldt, D. Roekaerts, P.J.M.M. de Smedt, A.J.
Weisenborn and B.U. Felderhof ; Turbulence and the process industry;
Second European Turbulence Conference, Berlin, 1988.
- B.U. Felderhof and G. Ooms
On the effective mass density of a suspension; Physics of Fluids 7 (1989)
1091- 1097.
- B.U. Felderhof and G. Ooms
Effects of inertia, friction and hydrodynamic interactions on turbulent
diffusion; Eur. J. Mech. 9 (1990) 349-368.

- B.U. Felderhof and G. Ooms
Influence of hydrodynamic interactions on turbulent diffusion; International Symposium on Turbulence Modification in Dispersed Multiphase Flows, San Diego, 1989.
- J.J.M. Geraets, A.K. Chesters and G. Ooms
Centrifugal scaling of isothermal gas-liquid flow in horizontal tubes; Chem. Biochem. Eng. Q. 2 (1988) 13-18.
- M.E. Van Kreveld and G. Ooms
Natuurkunde op het Koninklijke/Shell-laboratorium, Amsterdam 1914-1989; Nederlands Tijdschrift voor Natuurkunde, juni 1989.
- R. Postma, R.A. van Santen, P.W.N.M. van Leeuwen, E. Drent and G. Ooms
Quantumchemical calculations on organometallic reaction steps; Poster presented at the symposium Changing the face of research , Amsterdam, 1989.

1990 - 1999

- G. Ooms and B.E. Kampman-Reinhartz
Influence of drill pipe rotation and eccentricity on pressure drop over borehole during drilling; Eur. J. Mech. 15, no. 5 (1996) 695-711.
- G. Ooms and W.M.M. Schinkel
Effect of turbulence on hydrodynamic interaction and diffusion in a suspension; Proceedings of the Third International Conference on Multiphase Flow, ICMF 98, Lyon, France, 8-12 June 1998, pp. 658-665.
- G. Ooms and W.M.M. Schinkel
Effects of particle properties on turbulence intensity of a suspension; Published in Advances in Turbulence VII , editor U. Frisch, Kluwer Academic Publishers (ISBN 0-7923-5115-0), 273-277, 1998.
- A.C.T. Aarts, G. Ooms, K.J. Bil and E.T.C. Bot
Enhancement of liquid flow through a porous medium by ultrasonic radiation; Society of Petroleum Engineers, paper SPE 50594, August 1998.
- A.C.T. Aarts and G. Ooms
Net flow of compressible viscous liquids induced by travelling waves in porous media; Journal of Engineering Mathematics 34 (1998)435-450.
- G. Ooms and G.H. Jansen
First results of a new method to calculate closure relations for turbulent dispersed fluid-solid flows; Published in Two-Phase Flow Modelling and Experimentation 1999 , editors G.P. Celata, P. Di Marco and R.K. Shah, Edizioni ETS (ISBN 88-467-0177-1), 117-123, 1999.

2000 - present

- G. Ooms and G. H. Jansen Particles-turbulence interaction in stationary, homogeneous, isotropic turbulence; Int. J. Multiphase Flow 26 (2000) 1831-1850.
- G. Ooms and B.E. Kampman-Reinhartz Influence of drill pipe rotation and eccentricity on pressure drop over borehole during drilling; Society of Petroleum Engineers, paper SPE 56638, presented at the 74th Annual Technical Conference and Exhibition, Houston, USA, 3-6 October 1999.
- A.C.T. Aarts, G. Ooms, K.J. Bil and E.T.C. Bot
Enhancement of liquid flow through a porous medium by ultrasonic radiation; SPE Journal 4no4 (1999) 321-327.
- G.Ooms, J. Pietryga and C. Poelma Turbulence modification by small particles; experimental verification of a theoretical model; poster presented at the 8th European Turbulence Conference, 27-30 June 2000, Barcelona, Spain.
- G.Ooms and S. Guet On the importance of modelling and numerical simulation of practical flow problems from the oil industry, paper presented at the conference Computer codes for fluid mechanics organised by the French Society of Hydraulic Engineering, 11-13 September 2000, Paris
- G.Ooms, J. Gunning, C. Poelma and J. Westerweel Influence of particles-fluid interaction on the turbulent diffusion in a suspension, Int. J. Multiphase Flow, 28(2), 177-197, 2002.

- G.Ooms, J. Gunning , C. Poelma and J. Westerweel Influence of particle-fluid interaction, particle-particle hydrodynamic interaction and finite-particle size on the turbulent diffusion in a suspension; paper presented at the ERCOFTAC conference on the Dynamics of Particle-Laden Flows ; Kappel, Switzerland; 3-5 July 2000.
- F.T.M. Nieuwstadt and G. Ooms Turbulence in the year 2000; looking back and ahead; ERCOFTAC bulletin, March 2000.
- M. van Werven, G. Ooms, B.J. Azzopardi and H.R.E. van Maanen Modeling of annular-dispersed wet-gas flow through a venturi, paper presented at the 4th EUROMECH Fluid Mechanics Conference, 19-23 November 2000, Eindhoven, The Netherlands.
- G. Ooms and B.E. Kampman-Reinhartz Influence of drill pipe rotation and eccentricity on pressure drop over borehole with Newtonian liquid during drilling; SPE Drilling and Completion, 15 (4), 249-253, December 2000.
- G.Ooms and S. Guet, On the importance of modelling and numerical simulation of practical flow problems from the oil industry, La Houille Blanche (1) 30-33, 2001.
- G.Ooms, Some interesting multiphase flow problems from the industry; invited keynote lecture presented at the 4th International Conference on Multiphase Flows; May 2001, New Orleans.
- M. van Werven, G.Ooms, B.J. Azzopardi and H.R.E. van Maanen Modelling wet-gas annular/dispersed flow through a Venturi; AIChE Journal, 49 (6),1383-1391, 2003.
- C.Poelma and G.Ooms Influence of hydrodynamic interactions between particles on the turbulent flow in a suspension; paper presented at the International Conference on Multiphase Flow; New Orleans, USA; 28 May-1 June 2001.
- S.Guet, G.Ooms and R.V.A.Oliemans Influence of inlet conditions on the transition from non-dispersed bubbly flow to slug flow in a vertical pipe; paper presented at the International Conference on Multiphase Flow; New Orleans, USA; 28 May-1June 2001.
- S.Guet, G.Ooms, R.V.A.Oliemans and R.F.Mudde Bubble injector effect on the airlift efficiency in a 72mm diameter pipe; AIChE-journal, 49(9), 2242-2252, 2003.
- P.Poesio, G. Ooms, S.Barake and F.van der Bas An experimental and theoretical investigation of the influence of high- frequency acoustic waves on the flow of a liquid through a porous material; paper presented at the EAGE/SEG Research Workshop on Reservoir Rocks; 30 April-4May 2001; Pau,France.
- P.Poesio and G.Ooms, Experimental and theoretical investigation of the ultrasonic cleaning of the near well-bore region of an oil reservoir, published in Nonlinear Acoustics at the Beginning of the 21st Century, editors: O.V. Rudenko and O.A. Sapozhnikov, 2, 1229-1232, 2002.
- P.Poesio, G. Ooms, S.Barake and F.van der Bas An investigation of the influence of high-frequency acoustic waves on the flow of a liquid through a porous material; Journal Acoustical Society America, 111(5), 2002, 2019-2025.
- G.Ooms and C.Poelma Comparison between a point-particle model and a finite-diameter-particle model for the particle-turbulence interaction in a suspension; paper presented at the EUROMECH 421 colloquium Strongly-Coupled Dispersed Two-Phase Flows , 10-12 September 2001,Grenoble, France.
- P. Poesio, G.Ooms, A. Schraven and F.v.d. Bas Theoretical and experimental investigation of acoustic streaming in a porous material; Phys.Rev.E., 66 (2002) 016309.
- C. Poelma and G.Ooms Influence of hydrodynamic interactions between particles on the turbulent flow in a suspension; Experimental Thermal and Fluid Science, 26 (6-7), 2002, 653-659.
- S.Guet, G.Ooms and R.V.A.Oliemans Influence of inlet conditions on the transition from non-dispersed bubbly flow to slug flow in a vertical pipe; Experimental Thermal and Fluid Science, 26 (6-7), 2002, 635-641.
- G. Ooms, C. Poelma and J. Westerweel On the hydrodynamics of a turbulent suspension, paper presented at ETC-9, Southampton, UK, 2-5 July 2002.

- V.S. L vov, G. Ooms and A. Pomyalov Effect of particle inertia on the turbulence in a suspension, paper presented at the ERCOFTAC conference Small Particles in Turbulence , 11-13 March 2002. Seville, Spain.
- R.V. Fortunati, S.Guet and G. Ooms Accuracy and feasibility of bubble dynamic measurement with four-point optical glass fibre probes; paper presented at the 11th Symposium on Laser Techniques to Fluid Mechanics, Lisbon, Portugal.
- C. Poelma, J. Westerweel, H. Rotteveel and G. Ooms PIV in dispersed two-phase flow; paper presented at ETC-9, Southampton, UK, 2-5 July 2002.
- P. Poesio, G.Ooms, A. Schraven and F.v.d. Bas Theoretical and experimental investigation of acoustic streaming in a porous material; Poromechanics II, (2002) 763-768, editors: J.-L. Auriault et al., Swets & Zeilinger, Lisse, (ISBN 90 5809 394 8).
- P.Poesio, G.Ooms, M.E.H. van Dongen and D.M.J.Smeulders Removal of small particles from a porous material by ultrasonic irradiation; Transport in Porous Media, 54 (3), 239-264, 2004.
- P. Poesio and G. Ooms Formation and ultrasonic removal of fouling particles structures in a natural porous material; Journal of of Petroleum Science and Engineering, 45 (2004) 159-178..
- V.S.L vov, G.Ooms and A.Pomyalov Effect of particle inertia on the turbulence in a suspension; Phys.Rev.E. 67(no:4) article no:046314, April 2003.
- S.Guet, R.Fortunati, R.F.Mudde and G.Ooms Accuracy and feasibility of bubble dynamic measurement with four-point optical glass fibre probes, Particle and Particle Systems Characterization, 20 (3), 219-230, 2003.
- P.Poesio and G.Ooms Influence of ultrasonic waves on flow through porous media: experimental and theoretical study. Paper presented at the IUTAM Symposium on Mechanics of Physicochemical and Electromechanical interaction in Porous Media, 18 - 23 May 2003, Rolduc (The Netherlands), May 2003.
- M. van Werven, G. Ooms, B.J. Azzopardi and H.R.E. van Maanen Modeling of annular-dispersed wet-gas flow through a venturi. Paper presented at the 11th Flomeko, 12 - 14 May 2003, Groningen, The Netherlands.
- S.Guet, G.Ooms, R.V.A.Oliemans and R.F. Mudde Coupling between velocities and void fraction profile in a vertical bubbly pipe flow. Paper presented at the 5th Euromech Fluid Mechanics Conference, 24-28 August 2003, Toulouse , France.
- G.Ooms, C. Poelma, V.S. L vov and A. Pomyalov, Effect of particle inertia on the turbulence in a suspension. Poster presented at the 5th Euromech Fluid Mechanics Conference, 24-28 August 2003, Toulouse , France.
- P. Poesio and G. Ooms Particles-bridge formation inside a porous material. Paper presented at the 5th Euromech Fluid Mechanics Conference, 24-28 August 2003, Toulouse , France.
- C. Poelma and G. Ooms, On turbulent suspensions, Applied Mechanics Review 59 (March 2006) 1-13.
- G.Ooms and C.Poelma, Comparison between theoretical predictions and direct numerical simulation results for a decaying turbulent suspension, Phys. Rev. E, (69), 056311, May 2004.
- S. Guet, G. Ooms, R.V.A. Oliemans and R.F. Mudde Bubble size effect on low liquid input drift-flux parameters, Chemical Engineering Science, 59, 3315-3329, 2004.
- G. Ooms and P. Poesio, On stationary core-annular flow through a horizontal pipe, Phys. Rev. E, 68 (6), 066301(7), 2003.
- P. Poesio and G. Ooms, Fouling by external particles and ultrasonic cleaning of a porous material. Accepted for publication in SPE Journal.
- S. Guet, G. Ooms and R.V.A. Oliemans, A simplified two-fluid model for airlift efficiency predictions. AIChE-journal 51 (7) (2005) 1885-1896.
- G.Ooms and P. Poesio, The levitation force on the core in a stationary core-annular flow through a horizontal pipe. Presented at the 3rd International Symposium on Two-Phase Flow Modelling and Experimentation, Pisa, Italy, September 2004.

- P. Poesio and G. Ooms, Acoustic removal of colloidal particles from Berea sandstone. Presented at the SPE International Symposium and Exhibition on Formation Damage Control, SPE-paper 86490, Lafayette, Louisiana, USA, February 2004.
- P. Poesio, G. Ooms, J.C.R. Hunt and A. ten Cate, Interaction and collisions between particles in a linear shear flow near a wall at low Reynolds number, *Journal of Fluid Mechanics* 555 (2006) 113-130.
- S. Guet, S. Luther and G. Ooms, Bubble shape and orientation determination with a four-point optical fibre probe. Presented at the 3rd International Symposium on Two-Phase Flow Modelling and Experimentation, Pisa, Italy, September 2004.
- P. Poesio and G. Ooms, Removal of particles bridges from a porous material by ultrasonic irradiation, *Transport in Porous Media* 66(no 3) (2007) 235-257.
- S. Guet, S. Luther, G. Ooms and R.F. Mudde, Bubble transverse distribution effects on the airlift efficiency technique, Presented at the 5th International Conference on Multiphase Flow, ICMF 04, Yokohama, Japan, May 2004, Paper no. 279.
- S. Guet and G. Ooms, Hydrodynamic forces and flow instabilities during gaslift operations, *Annual Review of Fluid Mechanics* 38 (2006) 225-249.
- G. Ooms and P. Poesio, Simulation of removal of particle bridge formation by ultrasonic stimulation. Presented at the 3rd Biot Conference on Poromechanics, Oklahoma, USA, May 2005.
- P. Poesio, G. Ooms, J.C.R. Hunt and A. ten Cate, Trends towards particle strings and bridges in a shear flow. Presented at the APS/DFD meeting, Seattle, USA, November 2004.
- C. Poelma, J. Westerweel and G. Ooms, Experiments on particle-laden flow. Presented at the APS/DFD meeting, Seattle, USA, November 2004.
- G. Ooms and P. Poesio, Influence of inertia and gravity on the turbulence in a suspension. *Physics of Fluids* 17(12) (December 2005) Art. No.125101.
- G. Ooms, Life and work of J.M. Burgers in The Netherlands. Presented at the Inaugural Burgers Symposium, University of Maryland, USA, November 2004.
- G. Ooms and P. Poesio, Streaming in a porous material. Presented at the Inaugural Burgers Symposium, University of Maryland, USA, November 2004.
- S. Guet, S. Luther and G. Ooms, Bubble shape and orientation determination with a four-point optical fibre probe, *Experimental Thermal and Fluid Sciences*, 29(7) (2005) 803-812.
- C. Poelma, J. Westerweel and G. Ooms, Turbulence statistics from optical whole-field measurements in particle-laden turbulence, *Experiments in Fluids* 40(3) (2006) 347-363.
- M. Descamps, R.V.A. Oliemans, G. Ooms, R.F. Mudde and R. Kusters, Influence of gas injection on phase inversion in an oil-water flow through a vertical tube, *International Journal of Multiphase Flow* 32 (2006) 311-322.
- P. Poesio and G. Ooms, Review of ultrasonic flow stimulation of the near wellbore region of an oil reservoir, Submitted for publication in *Ultrasound*.
- K. Piela, R. Delfos, G. Ooms, R.V.A. Oliemans and R. Mudde, Phase inversion in an oil-water flow through a horizontal pipe, Presented at the 5th North American Conference on Multiphase Technology, Banff, Canada, 1-2 June 2006.
- G. Ooms and C. Vuik, Core-annular flow through a horizontal pipe: hydrodynamic counterbalancing of buoyancy force on core, Presented at the 6th European Fluid Mechanics Conference, 26-30 June 2006, Stockholm, Sweden.
- Xiaoyun Tu, Gijs Ooms and Fred van der Bas, Experimental evidence of ultrasonic stimulation of brine-oil flow through a porous rock in laboratory conditions, *Transport in Porous Media* 70 (2007) 323-333.
- K. Piela, R. Delfos, G. Ooms, J. Westerweel, R.V.A. Oliemans and R. Mudde, Experimental investigation of phase inversion in an oil-water flow through a horizontal pipeloop, *International Journal of Multiphase Flow* 32 (2006) 1087-1099.

- K. Piela, R. Delfos, G. ooms, J. Westerweel, R.V.A. Oliemans and R. Mudde, Phase inversion in an oil-water flow through a pipeloop, Presented at the 6th European Fluid Mechanics Conference, 26-30 June 2006, Stockholm, Sweden.
- M.Descamps, R.V.A. Oliemans, G. Ooms, R.F. Mudde and R. Kusters, Experimental study of the effect of gas injection on oil-water phase inversion in a vertical pipe, Presented at the 6th European Fluid Mechanics Conference, 26-30 June 2006, Stockholm, Sweden.
- Xiaoyun Tu, Gijs Ooms and Fred van der Bas, Ultrasonic stimulation of brine-oil flow through a porous rock: experimental verification of a theoretical model, Presented at the 6th European Fluid Mechanics Conference, 26-30 June 2006, Stockholm, Sweden.
- M. Descamps, R.V.A. Oliemans , R.F. Mudde and G. Ooms, Experimental study of air bubble injection on oil-water flow in a vertical pipe, Presented at 13th international Conference on Multiphase Production Technology, Edinburgh, Scotland, 2007.
- M. Descamps, R.V.A. Oliemans, G. Ooms and R.F. Mudde, Experimental investigation of three-phase flow in a vertical pipe: local characteristics of the gas phase for gas-lift conditions, International Journal of Multiphase Flow 33 (2007) 1205-1221.
- G. Ooms, P. Poesio, C. Poelma, M.J.B.M. Pourquie and J. Westerweel, Experimental verification of a theoretical model for the influence of particle inertia and of gravity on decaying turbulence in a particle-laden flow, Presented at the 11th European Turbulence Conference, 25-28 June 2007, Porto, Portugal.
- G. Ooms, Interaction and collisions between particles in a linear shear flow near a wall at low Reynolds number, Invited lecture at the Third Annual Symposium of the Burgers Program for Fluid Dynamics, 16 November 2006, University of Maryland, USA.
- K. Piela, G. Ooms, R. Delfos, J. Westerweel and R.V.A. Oliemans, Phase inversion in an oil-water flow, Presented at the International Conference on Multiphase Flows 2007 (ICMF-2007), July 2007, Leipzig, Germany.
- G. Ooms, P. Poesio, C. Poelma, M.J.B.M. Pourquie and J. Westerweel, Verification of a model to predict the influence of particle inertia and gravity on a decaying turbulent particle-laden flow, International Journal of Multiphase Flow 34(1) (2007) 29-41.
- C.Poelma, J.Westerweel and G. Ooms, Particle-fluid interaction in grid-generated turbulence, Journal of Fluid Mechanics 589 (2007) 315-350.
- K. Piela, R. Delfos, G. Ooms, J. Westerweel and R.V.A. Oliemans, On the phase inversion mechanism in an oil-water flow, International Journal of Multiphase Flow 34(7) (2008) 665-677.
- G. Ooms, C. Vuik and P. Poesio, Core-annular flow through a horizontal pipe: hydrodynamic counterbalancing of buoyancy force on core, Physics of Fluids 19 (2007) 092103.
- M.N. Descamps, R.V.A. Oliemans, G. Ooms and R.F. Mudde, Air-water flow in a vertical pipe: experimental study of air bubbles in the vicinity of the wall, Experiments in Fluids 45(2) (2008) 357-370.
- K. Piela, P. Poesio, G. Ooms and G.P. Beretta, Interpretation of phase inversion in liquid-liquid flows by minimal dissipation rate approach, 5th International Conference on Transport Phenomena in Multiphase Systems, 30 June - 3 July 2008, Bialystok, Poland.
- K. Piela, G. Ooms J.V. Sengers, A phenomenological description of phase inversion, Submitted to Physical Review E.
- K. Piela, R. Delfos, G. Ooms, J. Westerweel and R.V.A. Oliemans, Phase inversion in the mixing zone between a water flow and an oil flow through a pipe, Accepted for publication in International Journal of Multiphase Flow.
- G. Ooms, C. Vuik and P. Poesio, Core-annular flow through a horizontal pipe: hydrodynamic counterbalancing of buoyancy force on core, Presented at the 11th International Conference on Multiphase Flow in Industrial Plants, Palermo, Italy, 7-10 September 2008.
- K. Piela, R. Delfos, G. Ooms, J. Westerweel and R.V.A. Oliemans, Dispersed oil-water-gas flow through a horizontal pipe, Accepted for publication in AIChE-Journal.

- K. Piela, E. Djorahardjo, G.J.M. Koper and G. Ooms, Influence of a surfactant or salt on phase inversion in a water-oil pipe flow, Submitted to Chemical Engineering Applications and Design.
- G. Ooms and B.J. Boersma, The development of truncated inviscid turbulence and the FPU-problem, Submitted for publication in Chaos.

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