

Curriculum Vitae

Dr. Michael Lang

Dr. Michael Lang
Leibniz-Institut für Polymerforschung Dresden
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Phone: +49-351/4658744
Email: lang@ipfdd.de
Date of birth: September 9, 1973
Place of birth: Berching, Germany
Citizenship: German
Family status: married, 2 children



Employment as a scientist

- 09/2007-present Research Fellow at the Institute Theory of Polymers of the Leibniz-Institute of Polymer research; since 01/2015 substitutional head of the Institute Theory of Polymers
Research topics:
- Elasticity and Swelling of polymer networks
 - NMR analysis of polymer networks
 - Polymer Brushes: conformations, dynamics, and stabilization by cross-linking
 - Topological interactions between polymers
 - Olympic gels
 - Super-absorbent polymers (Cooperation with Evonik Industries)
 - Thin films (SPP1369)
 - Dynamics and relaxation of polymer materials
 - GPU simulation of polymer materials
- 09/2005-08/2007 Research Fellow in the lab of Prof. Rubinstein, University of North Carolina, NC, USA. Research topics:
- Rheology of cyclic polymers
 - Bi-disperse blends of polymers
 - Rheology and stability of the airway surface layer
 - Determination of entanglement parameters
 - Molecular dynamics simulations
- 12/2004-08/2005 Research Fellow in the lab of Prof. Göritz, University of Regensburg, Germany
- Monte Carlo simulation of nanoparticle aggregation
 - Conductivity analysis of resistor networks

Education

- 06/2001-11/2004 Ph.D. in Physics ("Summa Cum Laude"). Title of thesis: „Bildung und Struktur von polymeren Netzwerken“, supervisor Prof. Kreitmeier, University of Regensburg, Germany
- 11/1999-06/2001 Diploma in Physics. Title of thesis: „Strukturuntersuchungen an computergenerierten polymeren Netzwerken“, supervisor: Prof.

10/1993-11/1999 Kreitmeier, University of Regensburg, Germany
High School Teacher Mathematics and Physics („Lehramtsstudium
Gymnasium Mathematik und Physik“), University of Regensburg,
Germany

08/1984-06/1993 High School Diploma („Abitur“) Willibald Gymnasium Eichstätt,
Germany

Visiting Scientist and Summer Schools

06/2006-07/2007 Boulder Summer School on Physics of Soft Matter: Complex Fluids
and Biological Materials

04/2005 Visiting scientist at the Max-Planck-Institute for the Physics of
Complex Systems, Dresden, group of Prof. Jülicher

01/2005-03/2005 Visiting scientist at the University of North Carolina, NC, USA with
Prof. Rubinstein on the visco-elasticity of polymer networks

11/2004-12/2004 Visiting scientist at the CNRS, Mulhouse, France with Prof. Sommer
on the scattering of polymer gels

Stipends and Awards

11/2014 Best poster award of the Polymer Networks Group Meeting in Tokyo

06/2001 Ph. D. Stipend of the Faculty of Physics as a reward for an
outstanding diploma thesis

Fundraising

2017-2020: Ph.D position (3 years) for T. Müller, DFG Project LA2735/5-1

2017-2020: Ph.D position (3 years) for K. S. Kumar, DFG Project LA2735/5-1

2013-2015: Post-doc position (2 years) for Dr. A. Galuschko via SPP 1369

2011-2013: Post-doc position (2 years) for Dr. S. Nedelcu, DFG Project LA2735/2-1

2010-2011: Post-doc position (2 years) for Dr. J. Krawczyk, DFG Project LA2735/2-1

2009-2012: Own position (3 years), DFG Project LA2735/2-1

Post-Doc and Student Supervision

Leibniz-Institut für Polymerforschung, Germany, with Prof. Sommer:

Since 2017: Ph. D. thesis of T. Müller and K. S. Kumar

2016-2017 Master thesis of T. Müller, “Computer Simulations of the shear
deformation of entangled and unentangled polymer networks”

2016-2017 Master thesis of C. Strübig, “Wirkung rotierender Nanomotoren auf
Polymere Dopplestrang- und Netzwerksysteme”

2013-2015 A. John, Post-Doc, „Superabsorbers“, Industrial cooperation with
Evonik Industries.

2013-2015 A. Galuschko, Post-Doc „Monte Carlo simulation of thin film
polymer melts“

2010-2011 J. Fischer, diploma thesis, „Untersuchung von Olympischen Gelen
unter Nutzung des Bindungsfluktuationsmodells“

2011-2013 S. Nedelcu, Post-Doc, „GPU implementations of the bond
fluctuation model“

2010-2012 J. Krawczyk, Post-Doc, „MD-Simulation of Model Networks“

2009-2010 K. Schwenke, diploma thesis, „Simulation and Theory of Properties

2008-2009 of branched Polymers and their Cross-linking"
M. Hoffmann, diploma thesis „Theory and Simulation of cross-linked Polymers at Surfaces“

University of Regensburg, Germany, with Prof. Göritz / appl. Prof. Kreitmeier:

2004-2005 D. Güntner, diploma thesis „Analysis of conductivity networks“
2004-2005 M. Malinowski, diploma thesis „Computer Simulation of the Aggregation of Carbon Black“

Teaching

WS 2018/2019 Theoretical Polymer Physics, TU Dresden, Germany
SS 2018 Computer simulation of soft condensed matter, TU Dresden, Germany
SS 2017 Computer simulation of soft condensed matter, TU Dresden, Germany
WS 2016/2017 Theoretical Polymer Physics, TU Dresden, Germany
SS 2016 Computer simulation of soft condensed matter, TU Dresden, Germany
SS 2015 Computer simulation of soft condensed matter, TU Dresden, Germany
WS 2014/2015 Theoretical Polymer Physics, TU Dresden, Germany
SS 2014 Computer simulation of soft condensed matter, TU Dresden, Germany
WS 2012/2013 Theoretical Polymer Physics, TU Dresden, Germany
SS 2011 Polymer Physics, TU Chemnitz, Germany (sabbatical of Prof. Magerle)
WS 2010/2011 Theoretical Polymer Physics, TU Dresden, Germany
WS 2008/2009 Theoretical Polymer Physics, TU Dresden, Germany

Referee/Reviewer

- Deutsche Forschungsgemeinschaft (DFG) and National Research Foundation (NSF)
- Physical Review Letters, Physical Review E, Macromolecules, ACS Macro Letters, Soft Matter, Journal of Polymer Science, Journal of Chemical Physics, Journal of Computational Physics, ...

Other employments and National Service

06/1993-08-2005 Second occupation as organist of the catholic parish „Mariä Himmelfahrt“ in Obermässing. Director of two church choirs.
09/1993-08/2001 National service („Wehrersatzdienst“) as emergency medical technician, Bayrisches Rotes Kreuz in Beilngries, Eichstätt and Regensburg, Germany

Languages

German (native speaker), English (fluent), Latin (qualification: „Latinum“), ancient Greek (qualification: „Graecum“)

Publications

Publications statistics (as of 12/31/2018)

Total written publications:	37
Publications in peer reviewed journals:	33
Book Chapters / Conference Proceedings:	4
First author publications:	25
Corresponding author:	27
Citations:	831 (Google Scholar)
h-factor:	15 (Google Scholar)
Talks (first author only):	47
Invited talks at international meetings:	3
Posters:	36

Current information on all journal and book publications and some posters is available via Google Scholar:

<https://scholar.google.de/citations?user=NZLjnuUAAAAJ&hl=en>

or through my institutional homepage (paper in journals and books only):

<https://www.ipfdd.de/de/organisation/personal-homepages/dr-michael-lang/>

Selected Publications

1. M. Kapnistos, **M. Lang**, D. Vlassopoulos, W. Pyckhout- Hintzen, D. Richter, D. Cho, T. Chang, J. Roovers, and M. Rubinstein, „Unexpected power law stress relaxation of entangled ring polymers“, *Nature Materials* **7** (2008) 997.
2. **M. Lang**, J.-U. Sommer, „Analysis of entanglement length and segmental order parameter in polymer Networks“, *PhysRevLett* **104** (2010) 177801.
3. W. Chassé, **M. Lang**, J.-U. Sommer, K. Saalwächter, „Cross-link density estimation of PDMS networks with precise consideration of networks defects“, *Macromolecules* **45** (2012) 899.
4. **M. Lang**, M. Rubinstein, J.-U. Sommer, „Conformations of a Long Polymer in a Melt of Shorter Chains: Generalizations of the Flory Theorem“, *ACS Macro Letters* **4** (2015) 177.
5. **M. Lang**, “Elasticity of phantom model networks with cyclic defects”, *ACS Macro Letters* **7** (2018) 536.

Complete List of Publications

1. **M. Lang**, C. Schuster, R. Dockhorn, M. Wengenmayr, J.-U. Sommer, “Testing the physics of knots with a Feringa nanoengine”, *Phys. Rev. E* **98** (2018) 052501.
2. **M. Lang**, “Elasticity of phantom model networks with cyclic defects”, *ACS Macro Letters* **7** (2018) 536.
3. **M. Lang**, “Relation between Cross-Link Fluctuations and Elasticity in Entangled Polymer Networks”, *Macromolecules* **50** (2017) 2547.

4. **M. Lang**, M. Werner, R. Dockhorn, T. Kreer, „Arm retraction dynamics in dense polymer brushes“, [*Macromolecules* 49 \(2016\) 5190](#).
5. **M. Lang**, A. John, A. J.-U. Sommer, „Model simulations on network formation and swelling as obtained from cross-linking co-polymerization reactions“, [*Polymer* 82 \(2016\) 138](#).
6. **M. Lang**, J. Fischer, M. Werner, J.-U. Sommer, „Olympic gels: Concatenation and swelling“, [*Macromolecular Symposia* 358 \(2015\) 140](#).
7. J. Fischer, **M. Lang**, J.-U. Sommer, „The formation and structure of Olympic gels“, [*J. Chem. Phys.* 143 \(2015\) 243114](#).
8. **M. Lang**, M. Rubinstein, J.-U. Sommer, „Conformations of a Long Polymer in a Melt of Shorter Chains: Generalizations of the Flory Theorem“, [*ACS Macro Letters* 4 \(2015\) 177](#).
9. A. Galuschko, **M. Lang**, T. Kreer, J.-U. Sommer, „Monte Carlo simulation of thin film polymer melts“, [*Soft Materials* 12 \(2014\) S49](#).
10. D. Romeis, **M. Lang**, „Excluded volume effects in polymer brushes at moderate chain stretching“, [*J. Chem. Phys.* 141 \(2014\) 104901](#).
11. **M. Lang**, J. Fischer, M. Werner, J.-U. Sommer, „Swelling of Olympic gels“, [*Phys. Rev. Lett.* 112 \(2014\) 238001](#).
12. **M. Lang**, „Monomer fluctuations and the distribution of residual bond orientations in polymer networks“, [*Macromolecules* 46 \(2013\) 9782](#).
13. **M. Lang**, M. Hoffmann, R. Dockhorn, M. Werner, J.-U. Sommer, „Fluctuation driven height reduction of crosslinked polymer brushes: A Monte Carlo study“, [*J. Chem. Phys.* 139 \(2013\) 164903](#).
14. **M. Lang**, „Ring conformations in bidisperse blends of ring polymers“, [*Macromolecules* 46 \(2013\) 1158](#).
15. **M. Lang**, J. Fischer, J.-U. Sommer, „The effect of topology on the conformations of ring polymers“, [*Macromolecules* 45 \(2012\) 7642](#).
16. **M. Lang**, K. Schwenke, J.-U. Sommer, „Short cyclic structures in polymer model networks: a test of mean field approximation by Monte Carlo simulations“, [*Macromolecules* 45 \(2012\) 4886](#).
17. S. Nedelcu, M. Werner, **M. Lang**, J.-U. Sommer, „GPU implementations of the bond fluctuation model“, [*J. Comp. Phys.* 231 \(2012\) 2811](#).
18. W. Chassé, **M. Lang**, J.-U. Sommer, K. Saalwächter, „Cross-link density estimation of PDMS networks with precise consideration of networks defects“, [*Macromolecules* 45 \(2012\) 899](#).
19. F. Lange, K. Schwenke, M. Kurakazu, Y. Akagi, U.-I. Chung, **M. Lang**, J.-U. Sommer, T. Sakai, K. Saalwächter, „Connectivity and structural defects in Tetra-PEG Hydrogels: A combined proton NMR and Monte-Carlo simulation study“, [*Macromolecules* 44 \(2011\) 9666](#).
20. K. Schwenke, **M. Lang**, J.-U. Sommer, „On the structure of star-polymer networks“, [*Macromolecules* 44 \(2011\) 9464](#).
21. M. Hoffmann, **M. Lang**, J.-U. Sommer, „Gelation threshold of cross-linked polymer brushes“, [*Phys. Rev. E* 83 \(2011\) 021803](#).
22. **M. Lang**, J.-U. Sommer, „Analysis of entanglement length and segmental order parameter in polymer Networks“, [*PhysRevLett* 104 \(2010\) 177801](#).
23. M. Kapnistos, **M. Lang**, D. Vlassopoulos, W. Pyckhout-Hintzen, D. Richter, D. Cho, T. Chang, J. Roovers, and M. Rubinstein, „Unexpected power law stress relaxation of entangled ring polymers“, [*Nature Materials* 7 \(2008\) 997](#).

24. **M. Lang**, S. Kreitmeier, D. Göritz, „The effect of trapped entanglements in polymer networks on swelling and sol-fraction“, [*Rubber Chem & Tech*, 80 \(2008\) 873](#).
25. **M. Lang**, J.-U. Sommer, „[On the Origin of the scattering of gels and swollen networks](#)“, in „Constitutive Models for Rubber V“, Boukamel, Laiarinandrasana, Meo & Verron (eds), Taylor and Francis Group, London (2007) [ISBN 978 0 415 45442 1](#).
26. **M. Lang**, D. Göritz, S. Kreitmeier, „Intra-Molecular Reactions in End-Linked Polymer Networks and Linear (Co)Polymerizations“, [*Macromolecules* 38, \(2005\) 2515](#).
27. **M. Lang**, D. Göritz, S. Kreitmeier, „[Network defects and visco-elasticity](#)“, in „Constitutive Models for Rubber IV“, Austrell & Kari (eds), Taylor and Francis Group, London (2005) [ISBN 0 415 38346 3](#).
28. **M. Lang**, S. Kreitmeier, D. Göritz, „Entanglements and Structure of Polymer Networks“, [*Kautschuk Gummi Kunststoffe* 58 \(2005\) 179](#).
29. **M. Lang**, M. Malinowski, D. Güntner, S. Kreitmeier & D. Göritz, „Computer simulation of structure and conductivity in carbon black filled elastomers“, in „Filler Reinforcement of Rubbers“ (IOM Communications, London, 2004).
30. **M. Lang**, D. Göritz, S. Kreitmeier, „[The Effect of spatially inhomogeneous mixing of polymer and cross-links for end-linked polymer networks](#)“, in „Constitutive Models for Rubber III“, Busfield & Muhr (eds), Swets & Zeitlinger, Lisse, Netherlands (2003) [ISBN 90 5809 566 5](#).
31. **M. Lang**, W. Michalke, S. Kreitmeier, „Analysis of trapped entanglements in polymer networks“, [*J. Comp. Phys.* 185, 549 \(2003\)](#).
32. **M. Lang**, D. Göritz, S. Kreitmeier, „The Length of Subchains and Chain-Ends of Cross-Linked Polymer Networks“, [*Macromolecules*, 36 \(2003\) 4646](#).
33. W. Michalke, **M. Lang**, S. Kreitmeier, D. Göritz „Comparison of topological properties between end-linked and statistically cross-linked polymer networks“, [*J. Chem. Phys.* 117 \(2002\) 6300](#).
34. W. Michalke, S. Kreitmeier, **M. Lang**, A. Buchner, D. Göritz, „Monte Carlo simulations of the spatial structure of end-linked bimodal polymer networks: part II“, [*Comp. Theo. Pol. Sci.* 11 \(2001\) 459](#).
35. **M. Lang**, W. Michalke, S. Kreitmeier, „A statistical model for the length distribution of meshes in a polymer network“, [*J. Chem. Phys.* 114 \(2001\) 7627](#).
36. **M. Lang**, W. Michalke, S. Kreitmeier, „Optimized decomposition of simulated polymer networks into meshes“, [*Marcomol. Theory Simul.* 10 \(2001\) 204](#).
37. W. Michalke, **M. Lang**, S. Kreitmeier, D. Göritz „Simulations on the number of entanglements of a polymer network using knot theory“, [*Phys. Rev. E* 64, \(2001\) 012801](#).

Invited Talks at National and International Meetings

1. **M. Lang**, D. Göritz, and S. Kreitmeier, „Entanglements in Polymer Networks“, Paul-Flory Symposium of the Rubber Division of the ACS spring meeting, San Francisco (2003).
2. **M. Lang**, „The distribution of segmental order in polymer networks“, Hauptvortrag, DPG spring meeting, Regensburg (2013).

3. **M. Lang**, „Topological interactions between cyclic polymers“ Topical Workshop - Ring Polymers: Advances and Perspectives, (2015) in Heraclion, Crete, Greece.

Talks at conferences (as speaker only)

1. **M. Lang**, „The elasticity of phantom networks with cyclic and linear defects“, DPG Spring Meeting Berlin (2018).
2. **M. Lang**, „On the elasticity of phantom networks with cyclic and linear defects“, Polymer Networks and Gels 2018, Prag (2018).
3. **M. Lang**, „Molecular Simulation of Rubber Elasticity“, Frontiers of Rubber Science and Technology, Dresden (2017).
4. **M. Lang**, „Cross-link Fluctuations in Entangled Networks“, DPG spring meeting, Dresden (2017).
5. **M. Lang**, M. Werner, R. Dockhorn, T. Kreer, „On the dynamics of densely grafted polymer chains“, DPG spring meeting, Regensburg (2016).
6. **M. Lang**, M. Rubinstein, J.-U. Sommer, D. Romeis „Conformations of a Long Polymer in a Melt of Shorter Chains: Generalizations of the Flory Theorem and consequences for chain conformations in polymer brushes“, 4-th International Workshop - Theory and Computer Simulation of Polymers: New Developments, Halle (2015).
7. **M. Lang**, M. Rubinstein, J.-U. Sommer, „Conformations of a Long Polymer in a Melt of Shorter Chains: Generalizations of the Flory Theorem“, European Polymer Federation Meeting, Dresden (2015)
8. **M. Lang**, M. Rubinstein, J.-U. Sommer, „Conformations of a Long Polymer in a Melt of Shorter Chains: Generalizations of the Flory Theorem“, DPG-spring meeting, Berlin (2015).
9. **M. Lang**, J.-U. Sommer „Olympic Gels“, Polymer Networks and Gels, Tokyo (2014).
10. **M. Lang**, J. Fischer, M. Werner, J.-U. Sommer, „The swelling of Olympic gels“, APS March Meeting, Denver, Colorado (2014).
11. **M. Lang**, J. Fischer, M. Werner, J.-U. Sommer, „The swelling of Olympic gels“, DPG spring meeting Dresden (2014).
12. **M. Lang**, J. Fischer, J.-U. Sommer, „The effect of topology on the conformations of cyclic polymers in melts“, APS Spring Meeting, Baltimore (2013).
13. **M. Lang**, J.-U. Sommer, „The distribution of segmental order in polymer networks“, DPG spring meeting Dresden (2011).
14. **M. Lang**, J.-U. Sommer, „Segmental order of entangled polymer networks is controlled by monomer fluctuations along the confining tube“, APS Meeting, Portland, Oregon (2010).
15. **M. Lang**, J.-U. Sommer, „Analysis of Tube Reorientation and Segmental Order in Polymer Networks“, Polymer Networks Group Meeting, Goslar (2010).
16. **M. Lang**, J.-U. Sommer, „Chain conformations in bi-disperse blends of linear chains“, DPG spring meeting, Dresden (2009).
17. **M. Lang**, S. Panyukov, M. Rubinstein, J.-U. Sommer, „On the statistics of Gaussian two and three-dimensional networks: Fluctuations of junctions and collapse driven by structure“, APS March Meeting, New Orleans (2008).

18. **M. Lang**, S. Panyukov, M. Rubinstein, J.-U. Sommer, „On the statistics of Gaussian two and three-dimensional networks: Fluctuations of junctions and collapse driven by structure“, DPG spring meeting, Berlin (2008).
19. **M. Lang**, J.-U. Sommer, „On the origin of the scattering of gels and swollen polymer networks“, 5th European Conference on Constitutive Models for Rubber (ECCMR), Paris (2007).
20. **M. Lang**, M. Rubinstein, „Dynamics of melts consisting of circular and linear polymers“, DPG spring meeting, Regensburg (2007).
21. **M. Lang**, J.-U. Sommer, „The scattering of polymer gels and networks: Origin and relation to network structure“, DPG spring meeting, Regensburg (2007).
22. **M. Lang**, M. Rubinstein, „Dynamics of melts consisting of circular and linear polymers“, APS March meeting, Denver (2007).
23. **M. Lang**, M. Rubinstein, C. W. Davis, R. Tarran, R. Boucher, „A model for the volume regulatory mechanism of the Airway Surface Layer“, APS March meeting, Baltimore (2006).
24. **M. Lang**, D. Göritz, S. Kreitmeier, „Intra-molekulare Reaktionen in linearen und nicht-linearen Polymerisationen“, DPG spring meeting, Berlin (2005).
25. **M. Lang**, D. Göritz, S. Kreitmeier, „Computer simulations on swelling and deformation experiments of polymer networks“, DPG spring meeting, Berlin (2005).
26. **M. Lang**, D. Göritz, S. Kreitmeier, „Der wechselseitige Einfluss von Struktur und Dynamik in einem polymeren Netzwerk“, DPG spring meeting, Berlin (2005).
27. **M. Lang**, D. Göritz, S. Kreitmeier, „Entanglements and structure of polymer networks“, Kautschuk Herbst Kolloquium, Hannover (2004).
28. **M. Lang**, M. Malinowski, D. Güntner, D. Göritz, S. Kreitmeier, „Computer Simulation of Structure and Conductivity in Carbon Black Filled Elastomers“, Filler Reinforcement of Rubbers, London (2004).
29. **M. Lang**, D. Göritz, S. Kreitmeier, „Simulations on formation and structure of polymer networks, Polymer networks group meeting, Bethesda (2004).
30. **M. Lang**, D. Göritz, S. Kreitmeier, „Simulations on swelling and deformation of polymer model networks“, APS March meeting, Montreal (2004).
31. **M. Lang**, D. Göritz, S. Kreitmeier, „The effect of spatially inhomogeneous mixing of polymers and cross-links for end-linked polymer networks“, DPG spring meeting, Regensburg (2004).
32. **M. Lang**, D. Göritz, S. Kreitmeier, „Strukturen polymerer Netzwerke im Vergleich“, DPG spring meeting, Regensburg (2004).
33. **M. Lang**, D. Göritz, and S. Kreitmeier, „Entanglements in Polymer Networks“, Paul-Flory Symposium of the Rubber Division of the ACS spring meeting, San Francisco (2003).
34. **M. Lang**, D. Göritz and S. Kreitmeier, „The Effect of spatially inhomogeneous mixing of polymer and cross-links for end-linked polymer networks“, European Conference on Constitutive Models for Rubber III, London (2003).
35. **M. Lang**, W. Michalke, S. Kreitmeier, „Statistisches Modell zur Bestimmung der Längenverteilung der Maschen eines polymeren Netzwerkes“, Vortrag auf der DPG spring meeting in Regensburg (2002).

Other invited talks

1. **M. Lang**, J.-U. Sommer, „Segmental Order in Polymer Networks & Entanglements and Dynamics in the Interphase Region“, University of Halle (2011), invited by Prof. Saalwächter.
2. **M. Lang**, J.-U. Sommer Fluctuation & Order in (Entangled) Polymer Networks TU Chemnitz, invited by Prof. Magerle, 2011.
3. **M. Lang**, „Conformations and Dynamics of Polymer Blends with Different Architecture and Weight: Linear Chains and Ring Polymers Universität Freiburg, invited by Prof. Blumen, (2009).
4. **M. Lang**, M. Rubinstein, „Height regulation of the Airway Surface Layer“, University of North Carolina at Chapel Hill, (2008), invited by Prof. Boucher.
5. **M. Lang**, „Dynamics of Entangled Polymers with Different Architecture: Rings vs. Linear Polymers“, LMU München (2008), invited by Prof. Frey.
6. **M. Lang**, M. Rubinstein, „On the determination of the primitive path in a polymer network“, University of Minnesota at Ann Arbor (2006), invited by Prof. Larson.
7. **M. Lang**, „The formation of polymer networks“, University of North Carolina at Chapel Hill, (2005), invited by Prof. Rubinstein.
8. **M. Lang**, „Structure and formation of polymer networks“. Max Planck Institut for the Physics of Komplex Systems, Dresden, (2005), invited by Dr. Everaers.
9. **M. Lang**, „Simulations on polymer network structure“, CNRS in Mulhouse, Frankreich, (2004), invited by Dr. J.-U. Sommer.

Posters at conferences

1. T. Müller, **M. Lang**, J.-U. Sommer, „The elasticity of real polymer networks without entanglements“, Polymer Networks and Gels, Prag (2018).
2. T. Müller, **M. Lang**, J.-U. Sommer, „Simulation and theory of model systems for slide ring networks“, 13th IPF Colloquium, Dresden (2018).
3. R. Dockhorn, **M. Lang**, C. Schuster, M. Wengenmayr, J.-U. Sommer, „The action of feringa-type engines in polymer model systems: Molecular stirling engines and active gels“, 16th Dresden Polymer Discussion, Meißen (2018).
4. R. Dockhorn, **M. Lang**, C. Schuster, M. Wengenmayr, J.-U. Sommer, „The action of feringa-type engines in polymer model systems: Molecular stirling engines and active gels“, 13th IPF Colloquium, Dresden (2018).
5. **M. Lang**, T. Müller, J.-U. Sommer, „The elasticity of real polymer networks without entanglements“, DPG Spring Meeting, Berlin (2018).
6. **M. Lang**, C. Schuster, R. Dockhorn, M. Wengenmayr, J.-U. Sommer, „Feringa type engines in polymer model systems: Folding, coiling, molecular stirling engines, and active gels“, Polymer Networks and Gels, Prag (2018).
7. T. Müller, **M. Lang**, J.-U. Sommer, „Shear deformation of model networks: A Monte-Carlo study“, DPG spring meeting Dresden (2017). T. Müller, J.-U. Sommer,
8. **M. Lang**, „Simulation of partially reversible networks under deformation or swelling“, DPG spring meeting Regensburg (2016).
9. **M. Lang**, J. Fischer, J.-U. Sommer „Olympic Gels“, European Polymer Federation Meeting Dresden (2015).

10. A. Galuschko, **M. Lang**, T. Kreer, J.-U. Sommer, „Monte Carlo Simulation of Thin Film Polymer Melts“, European Polymer Federation Meeting Dresden (2015).
11. **M. Lang**, A. John, J.-U. Sommer, The Formation and Swelling of Superabsorbent Networks: A Monte Carlo Study“, European Polymer Federation Meeting Dresden (2015).
12. A. Galuschko, **M. Lang**, T. Kreer, J.-U. Sommer, „Monte Carlo Simulation of Thin Film Polymer Melts“, DPG spring meeting Berlin (2015).
13. **M. Lang**, A. John, J.-U. Sommer, The Formation and Swelling of Superabsorbent Networks: A Monte Carlo Study“, DPG spring meeting Berlin (2015).
14. **M. Lang**, M. Hoffmann, R. Dockhorn, M. Werner, J.-U. Sommer, „Fluctuation driven height reduction of cross-linked polymer brushes: A Monte Carlo study“, Polymer Networks and Gels, Tokyo (2014).
15. **M. Lang**, R. Dockhorn, M. Werner, T. Kreer, J.-U. Sommer, „On the dynamics of polymer brushes“, DPG spring meeting (2014).
16. **M. Lang**, R. Dockhorn, M. Werner, T. Kreer, J.-U. Sommer, „On the dynamics of polymer brushes“, APS March Meeting Denver, Colorado (2014).
17. **M. Lang**, M. Werner, M. Hoffmann, J.-U. Sommer, „Static and dynamic properties of cross-linked and non-cross-linked polymer brushes“, DPG spring meeting Regensburg (2013).
18. **M. Lang**, J. Fischer, J.-U. Sommer, „The effect of topology on the conformations of cyclic polymers in melts“, DPG spring meeting Regensburg (2013).
19. **M. Lang**, J.-U. Sommer, „The distribution of segmental order in polymer networks“, DPG spring meeting, Regensburg, (2013).
20. **M. Lang** „The conformations of cyclic polymers in bidisperse blends of cyclic polymers“, APS March meeting, Baltimore (2013).
21. **M. Lang**, K. Schwenke, J.-U. Sommer „On the structure of star polymer networks“, DPG spring meeting, Berlin (2012).
22. **M. Lang**, K. Schwenke, J.-U. Sommer, Rate theory of cyclic structures in polymer model networks cyclic“, DPG spring meeting, Berlin (2012).
23. K. Schwenke, **M. Lang**, J.-U. Sommer, „Polymer networks from binary 4-arm-star polymer solutions: A Monte Carlo study“, Polymer Networks Group Meeting, Goslar (2010).
24. K. Schwenke, **M. Lang**, J.-U. Sommer, „4-arm star polymer networks“, DPG spring meeting, Regensburg (2010).
25. **M. Lang**, M. Rubinstein, „Statistics and dynamics of blends of linear and ring polymers“, DPG spring meeting, Berlin, (2008).
26. **M. Lang**, M. Rubinstein, „Statistics and dynamics of blends of linear and ring polymers“, APS March meeting, New Orleans (2008).
27. **M. Lang**, M. Rubinstein, „On the determination of primitive paths in entangled polymer melts and networks“, APS March meeting, Baltimore (2006).
28. **M. Lang**, M. Malinowski, D. Güntner, D. Göritz, S. Kreitmeier, „Computer Simulation of Structure and Conductivity in Carbon Black Filled Elastomers“, Filler Reinforcement of Rubbers Meeting, London (2004).
29. **M. Lang**, S. Kreitmeier, „Der Einfluss der Funktionalität der Netzstellen auf die Struktur end-vernetzer polymerer Netzwerke“, DPG spring meeting, Dresden (2003).
30. **M. Lang**, W. Michalke, S. Kreitmeier, D. Göritz „Die Bestimmung der Struktur

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