

# CV HIGHLIGHTS - PROF. DR. ANA-SUNČANA SMITH [www.puls.physik.fau.de]

<b>PERSONAL</b>	<ul style="list-style-type: none"> <li>› Born: Croatia, 1975. Married, 3 children. Nationalities: Croatian, French</li> </ul>
<b>CURRENT EMPLOYMENT</b>	<ul style="list-style-type: none"> <li>› Oct. 20012 – W2 Professor at the I. Institut für Theoretische Physik, Universität Nürnberg-Erlangen, Germany, Nägelbachstrasse 49c, 91052 Erlangen <ul style="list-style-type: none"> <li>› PULS Group leader (3 PostDocs, 7 PhDs, 5 Masters students).</li> <li>› Member of Executive Board of the EAM Cluster of Excellence (EAM)</li> <li>› Member of the steering committee of the DFG RTG1862</li> </ul> </li> <li>› Oct. 2013 – Senior Researcher at the Institute Ruđer Bošković, Zagreb, Croatia (part time)</li> </ul>
<b>SABBATICAL POST-DOCS</b>	<ul style="list-style-type: none"> <li>› WS 2015 Newton Institute of Physics, Cambridge UK</li> <li>› 2006-2009/ – Research Associate, II. Institut für Theoretische Physik, Universität Stuttgart</li> <li>› 2005-2006/ I. Institut für Theoretische Physik, Universität Nürnberg-Erlangen, Germany</li> <li>› 2005/ School of Chemistry, University of Sydney, Australia.</li> </ul>
<b>PHD IN PHYSICS</b>	<ul style="list-style-type: none"> <li>› 2002-2004/ E22 Institut für Biophysik, TUM München. Supervisor: Prof. E. Sackmann. Thesis: “<i>Modelling cell adhesion and its control mechanisms with a vesicle substrate system</i>”.</li> </ul>
<b>DIPLOMA IN PHYSICS</b>	<ul style="list-style-type: none"> <li>› 2001/ University of Zagreb, Croatia.</li> <li>› 1999/ Diploma work at the Department of Applied Mathematics, ANU, Canberra, Australia. Supervisor: Prof. S. Marčelja. Thesis: “<i>Examination of New Aspects of the Hydrophobic Effect</i>”.</li> </ul>
<b>PUBLICATIONS</b> ( <i>h</i> -index=16)	<ul style="list-style-type: none"> <li>› 41 papers (10 first, 19 last, 3 single author) on topics in biophysics, soft matter and statistical physics including one Nature Phys., one PNAS, one Adv. Mat, one Nature Comm. further 5 letters out of which 3 are PRLs, 4 full papers with cover pages, 3 reviews. Mostly combination of theoretical and experimental works.</li> </ul>
<b>DISSEMINATION</b>	<ul style="list-style-type: none"> <li>› 46 (+11) invited (+contributed) lectures at international scientific conferences. 40 invited seminar talks at international research institutions.</li> <li>› Conference organisation: Chair of PhysCell2009, PhysCell2012, PhysCell2015</li> </ul>
<b>TEACHING</b>	<ul style="list-style-type: none"> <li>› SoSe 2012, 13, 16 “Quantum Mechanics”; WiSe 2010, 11, 13, 14 – “Classical Field Theory”</li> <li>› Elective courses and seminars in Theoretical and Computational Soft Matter and Biophysics</li> </ul>
<b>COLLABORATORS</b>	<ul style="list-style-type: none"> <li>› R. Merkel (Jülich), U Rude &amp; D. Duzdiak (FAU Erlangen), S. Fenz (Würzburg), K. Sengupta (Marseille), S. J. Marrink (Groningen), D. Smith &amp; D. Kralj (Zagreb), V. Sandoghdar (Erlangen), F. Rehfeld (Göttingen), S. Eggeling (Oxford), K. Gauss (Sydney), U. Seifert (Stuttgart)</li> </ul>
<b>SELECTED FUNDING</b> (TOTAL~3 M€)	<ul style="list-style-type: none"> <li>› 2013-2019 ERC Stg 337283 MEMBRANESACT (1.500,000 Euros)</li> <li>› 2017-2019 Emerging Field Initiative Big Thera (80,000 Euros)</li> <li>› 2013-2018 Cluster of Excellence – EAM, FAU, Erlangen, Germany (500,000 Euros )</li> <li>› 2014-2019 DFG RTG1862 Processes on Biological Membranes (200,000 Euros)</li> </ul>
<b>RESEARCH TOPICS</b>	<ul style="list-style-type: none"> <li>› Materials sciences: <ul style="list-style-type: none"> <li>○ Electrophoretic motion on nanoscale</li> <li>○ Solid-liquid interfaces, film formation (biomineralisation, ionic liquids, functional particles)</li> <li>○ Multiscale modelling of SILP catalysis (HI-ErN/EAM project)</li> </ul> </li> <li>› Statistical physics and biophysics of systems with reduced dimensionality <ul style="list-style-type: none"> <li>○ Nonequilibrium stochastic dynamics of membranes and tissues</li> <li>○ Transport: diffusion on membranes, hydrodynamics and self-propulsion, relation to growth</li> <li>○ Adhesion and friction in the biological context: Effects of fluctuations, mechanosensing and transduction, coupling to signalling</li> </ul> </li> </ul>
<b>METHODS</b>	<ul style="list-style-type: none"> <li>› Analytic and numerical modelling, commercial and in house developed simulation tools (Monte Carlo, Molecular Dynamics, Lattice Boltzmann, Langevin dynamics)</li> <li>› Experimental data analysis, image processing</li> </ul>
<b>AWARDS</b>	<ul style="list-style-type: none"> <li>› 2009 Rising Star of the Excellence Cluster EAM</li> <li>› 2011 - Member of the Collegium of the Bavarian Academy of Sciences and Humanities.</li> <li>› 2013 - ERC StG 337283 MEMBRANESACT</li> <li>› 2016 - Order of the Croatian Daystar for contributions to Croatian science</li> </ul>
<b>LANGUAGES</b>	<ul style="list-style-type: none"> <li>› Fluent in English, Croatian and French, active knowledge of German</li> </ul>