

# CV

## Apl. Prof. Dr. Sc. Tatiana Gambaryan-Roisman

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Institute of Technical Thermodynamics,  
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Born: 05.06.1968 in Baku (USSR)



**Present Position:** Apl. Professor, Head of Research Group

### University Education and Academic Degrees:

Habilitation: TU Darmstadt, 29.01.2008, Mentor: Prof. Peter Stephan  
Promotion: Technion, Haifa, Israel, 26.04.1998, supervisors: Prof. M. Shapiro, Prof. A. Shavit  
M.Sc. examination: 15.06.1994, Technion, Haifa, Israel  
University studies: Studies towards M.Sc. in Mechanical Engineering, Technion, Haifa, Israel, 1991-1994, supervisors: Prof. M. Shapiro, Prof. A. Shavit  
Studies of Thermophysics, Moscow power Engineering Institute, Moscow, Russia, 1986 – 1991

### Professional Experience:

- since 2015 Apl. Professor, Department of Mechanical Engineering, TU Darmstadt
- since 2010 Head of Research Group, Institute of Technical Thermodynamics, Department of Mechanical Engineering, TU Darmstadt
- 2003-2010 Head of Emmy Noether – Junior Researcher Group (DFG), Department of Mechanical Engineering, TU Darmstadt
- 2000-2002 Research Assistant, Institute of Technical Thermodynamics, Department of Mechanical Engineering, TU Darmstadt
- 1998-2000 Research Assistant and Minerva-Fellow, Institute of Glass and Ceramics, Department of Materials Science, Friedrich-Alexander-Universität Erlangen-Nürnberg
- 1992-1998 Teaching Assistant, Mechanical Engineering, Technion, Haifa, Israel

### Publications and Patents:

Total number of publications around 135, 74 in peer reviewed international journals, 3 book chapters, 1 patent.

### Other:

2018 – Editorial Board Member of the journal „Interfacial Phenomena and Heat Transfer“  
2017 – Editorial Board Member of the journal „Colloids and Interfaces“  
2016 – Editor of the journal „Experimental Thermal and Fluid Science“  
2014 – 2017 Coordinator of EU Marie Curie Initial Training Network Complex Wetting Phenomena (CoWet)  
2008 – Editorial Board Member of „Computational Thermal Sciences“  
2005 „Team Achievement Award“ for Foton M2 Space Mission (European Space Agency)

**Activities in Scientific Organizations:**

- 2018 – Ordinary Member of Council of IACIS (International Association of Colloid and Interface Scientists)
- 2017 – Member of Scientific Council of ICHMT (International Centre for Heat and Mass Transfer)
- 2012 – 2016 Member of Management Committee, COST Action MP1106
- 2010 – 2012 Member of Scientific Steering Committee, Cluster of Excellence 259 Smart Interfaces – Understanding and Designing Fluid Boundaries

**Selected publications:**

1. Gambaryan-Roisman, T.: Marangoni convection, evaporation and interface deformation in liquid films on heated substrates with non-uniform thermal conductivity, *Int. J. Heat Mass Transfer* 53 (2010), 390-402.
2. Weickgenannt, C. M., Zhang, Y., Lembach, A. N., Roisman, I. V., Gambaryan-Roisman, T., Yarin, A. L., Tropea, C.: Non-isothermal drop impact and evaporation on polymer nanofiber mats, *Phys. Rev. E* 83 (2011), 036305.
3. Gambaryan-Roisman, T.: Liquids on porous layers: Wetting, imbibition and transport processes, *Curr. Opin. Colloid Interface Sci.* 19 (2014), 320-335.
4. Gambaryan-Roisman, T.: Modulation of Marangoni convection in liquid films, *Adv. Colloid Interface Sci.* 222 (2015), 319-331.
5. Freystein, M., Kolberg, F., Spiegel, L., Sinha-Ray, S., Sahu, R.P., Yarin, A. L., Gambaryan-Roisman, T., Stephan P.: Trains of Taylor bubbles over hot nano-textured mini-channel surface, *Int. J. Heat Mass Transf.* 93 (2016), 827-833.
6. Fischer, S., Sahu, R.P., Sinha-Ray, S., Yarin, A. L., Gambaryan-Roisman, T., Stephan P.: Effect of nano-textured heater surfaces on evaporation at a single meniscus, *Int. J. Heat Mass Transf.* 108 (2017), 2444-2450.
7. Bender, A., Stephan, P., Gambaryan-Roisman, T.: Thin liquid films with time-dependent chemical reactions sheared by an ambient gas flow, *Phys. Rev. Fluids* 2 (2017), 084002.
8. Alam, E., Yadav, S., Schneider, J., Gambaryan-Roisman, T.: Imbibition of water into thermally treated polydimethylsiloxane substrates, *Colloids Surf. A* 521 (2017), 69-77.
9. Kumar, A., Kleinen, J., Venzmer, J., Gambaryan-Roisman, T.: Effect of geometry on electrokinetic characterization of solid surfaces, *Langmuir* 33 (2017), 7556-7568.
10. Kittel, H.M., Alam, E., Roisman, I.V., Tropea, C., Gambaryan-Roisman, T.: Splashing of a Newtonian drop impacted onto a solid substrate coated by a thin soft layer, *Colloids Surf. A* 553 (2018), 89-96.