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AVH ASSOCIATION BANGALORE

Annual Day Lecture

SERC Auditorium, IISc, September 20, 15:00 Hrs

Prof. Lutz Tobiska

Institut für Analysis und Numerik, Magdeburg



On Pendant, Sessile, Growing and Oscillating Droplets

In many situations in everyday life, in technological processing and in natural phenomena the understanding of interfacial flows in and of droplets plays an essential role, e.g. in spray cooling, surface coating, ink-jet printing, lab-on-a chip, oil and natural gas recovery, cleaning solutions, paints, drug delivery and surgical planning. The talk covers some aspects of modeling, numerical analysis and simulation of droplets and shows that contributions of different fields, application area, numerical mathematics, informatics and high performance computing are needed for realistic answers in applications.

Prof. Gautam R. Desiraju

Indian Institute of Science, Bangalore



Chemistry and Geometry in Crystal Engineering. The Humboldt Forschungspreis

Crystal Engineering is the science and art of crystal structure design of molecular solids. These crystal structures are determined by chemical factors, in other words the chemical laws that govern how molecules assemble themselves in crystals and by geometrical laws, or how the most efficient use is made of space when molecules are packed together. My visits to Germany as a Humboldt Preisträger between 2000 and 2006 coincided with a debate and discussion on a particularly contentious system wherein it is not easy to make out whether chemical or geometrical factors are more important in building a crystal structure. Using this problem as a backdrop, I will outline some general impressions of Germany, research in structural chemistry and what I believe are the priorities that Indian and German scientists should identify to further strengthen their cooperation.

Tea-coffee: 14:45 Hrs