The favorite images from the Houston Gallery of Rheology appear in this Bulletin, with the top choice on the cover and the other outstanding images inside.

The Eye of Sauron by Alan R. Jacob, Lilian C. Hsiao and Michael Dickey of North Carolina State University, U.S.A. was the first-place choice for the Gallery of Rheology in Houston. Gallium is a liquid metal that forms an elastic native oxide skin. The oxide skin surrounding the liquid metal manifests creases on the air-liquid metal interface. A high energy concentric backscattering detector (CBS) was used to obtain an electron microscopy image which captures an enhanced contrast image of the wrinkles present on the interface. The crinkles resemble fiery flames when false color is applied. This image reveals the rich interfacial phenomenon displayed by liquid metals which is yet to be properly understood.

Two other Gallery images were singled out, both from the Massachusetts Institute of Technology (see page 6). Viscoelastic Fishbones (“Stretching the Sands of Time”) was the work of Bavand Keshavarz, Michela Geri, and Gareth H. McKinley. In this set of images two identical fast liquid jets collide into each other at an oblique angle. To the naked eye they form a blurred liquid fan, but with a high-speed air-gap flash that releases a 20,000 volts arc into the air in less than 300 nanoseconds, liquid patterns are frozen in time. The Newtonian fish bones break into a chain of droplets that depart from the liquid fan. For the viscoelastic liquids, enhanced elongational viscosity delays the droplet breakup and leads to the formation of bead and elongated filaments.

Carbon Nanotube Wizard Hat was created by Crystal E. Owens, A. John Hart, and Gareth H. McKinley. The image is a scanning electron micrograph of a 3D printed structure in which more than 50 billion carbon nanotubes (CNTs), 2 microns by 2 nanometers each, have assembled to form a conductive, pure-CNT object. The sharp upper tip was created by necking due to capillary forces while printing in a mostly extensional flow, reminiscent, in the eyes of the creators, of the process which creates the top cusp on chocolate “kisses.”

**Poster Contest Results, Houston 2018**

The poster session in Houston was well attended with an excellent selection of refreshments courtesy of sponsor Anton Paar USA. The Student/Post-Doc Poster Competition was conducted by session chairs Vivek Narimihan and Rajesh Khare. Honored in the Student category were: 1st place, Ali Slim (University of Houston), Dynamics of polymer grouted nanoparticles controlled by soft confinement, with coauthors Ryan Poling-Skvitnik, Jacinta C. Conrad, and Ramanan Krishnamoorthi; 2nd place Valerian Hirschberg (Université Laval), Fatigue analysis via Fourier transform of the stress, with coauthors Manfred Wilhelm and Denis Rodrigue; 3rd place Jiho Choi (University of Illinois at Urbana-Champaign), Elastic stress during stepwise reduction in shear rate for thixotropic suspensions with coauthor Simon A. Rogers. Congratulations!

*Poster session co-chair Vivek Narimihan with awardees Ali Slim (1st place), Valerian Hirschberg (2nd place), and Jiho Choi (3rd place).*