The Beauty of Flow Visualization

**Opal Essence:** Dry ice placed underwater forms bubbles of CO2 filled with water fog. The bubbles are illuminated by a flash. The room lights made the red smear while the shutter was open. **Amanda Barnes, Sean Hulings, Mu Hong Lin, Vanessa Ready and Brian Roche**

**Diverge/Converge:** A Tesla coil creates plasma that arcs through air. **Mark Reusser, Larissa Rhodes, William Murray and Brian Hancz**

**Flying Flames:** A spray of WD-40 is ignited by a candle, barely visible in the center. **Jake Dembeck, Robert Irmiger, David Levine, John Miller and Brittany Moore**

**Worlds Colliding:** A layer of rubbing alcohol burns on top of vegetable oil, on top of dyed boiling water in a pot on a stove. **James Kostrzewa**

**Burbling:** Dyed water, excited by a loud-speaker from below. **Jake Dembeck and David Levine**

**Catenary on a Cold Steel Rod:** Water droplets hang from a cylinder, held by surface tension. The droplets, formed by gravity and surface tension, are almost catenary shapes, acting as lenses. **Amanda Barnes**

**Spin...Color:** Colors caused by interference of light waves show thickness variations in a thin layer spin-coated onto a silicon wafer. The center of the spin is near the middle of the image. **Mu-Hong Lin**

**Flow Orange:** Ultra dish soap poured over food dye on a plate. **Megan Firestone**

**Flow Over:** A surge of water pours over an obstacle during the filling of a water channel. **Kaite McNally, Shane Fagan, Megan Firestone and Eli Luke**

**Oil Fingering:** Looking down on a thin layer of oil sandwiched between sheets of plastic, air was pulled into oil as the top sheet of plastic was lifted. **Erik Hansen, Phil Bollam, Justin Cohee, Barry Whittaker and Hsin-Jui Wu**

**Interstices:** Time exposure of colored wavy strings moving in the air turbulence created by a box fan. **Derek Paul**

**Oobleck:** Pouring a cornstarch/water mixture shows non-Newtonian behavior, as the faster moving fluid is ‘stiffer’ than the slower, pooled mixture. **Robert Irmiger**

**Smoke Curls:** Rising smoke curls under a spoon. **Kaite McNally**

**Smoke Over:** Rising smoke curls under a spoon. **Kaite McNally**

**Water Talks:** Droplet splashes rebound into Worthington jets. **Chris Bonilha**

**Solid in Gas in Liquid:** A fire extinguisher set off underwater creates a three phase (solid, liquid, gas) flow. Rising bubbles of the propellant are filled with clouds of powder. **Matthew Blessinger, Dung Dinh Luu, Kevin McCoy and Joseph VanAmberg**