Photo Contest

Congratulations to the winners of OPN's 19th annual After Image photo contest!

For this year's contest, OPN received 63 stunning entries. We thank the panel of judges who provided insight on those images and helped select the winners: Alvaro Casas Bedoya, Mihaela Dinu, Antigone Marino, Anca Sala, Susanna Thon and Joel Villatoro.

You can see all of this year's contest entries online at optica-opn.org/contest/2024.



FIRST PLACE

Pseudo Schwarzschild radius: Two superimposed images of a randomly oscillating color-illuminated string, which were then subjected to rotations and polar coordinate transformations.

—Dan Curticapean, Offenburg University, Offenburg, Germany



Photo Contest



SECOND PLACE TIE

Soap bubbles glimmer with lightwaves reflected from the back and front surfaces of the bubble that interfere with one another, thus concentrating the light to give a dynamic rainbow-color appearance.

-Sritam Kumar Sethy, Berhampur University, Balasore, Odisha, India



SECOND PLACE TIE

Section of mouse calvarial bone days after injury imaged through second-harmonic generation (SHG) microscopy, revealing changes in collagen organization and tissue remodeling. The SHG signal of fibrillar collagen is displayed in green, while blue shows the autofluorescence of primarily organic, non-collagen components in bone tissue.

-Maria Alice Paularie, Bruno Henrique Costa, Emerson Alberto da Fonseca, Leandro M. Malard, Universidade Federal de Minas Gerais, UFMG, Minas Gerais, Brazil; Érika Lorena Fonseca Costa de Alvarenga, Bruno Henrique Costa, Universidade Federal de São João del-Rei, UFSJ, Minas Gerais, Brazil

Photo Contest

THIRD PLACE TIE

A 405-nm laser is shone through the marble ball from a Codd-neck bottle of the Japanese soft drink Ramune, which focuses the beam into a glass table. The yellow and green fluorescent responses likely arise from dopants such as uranium, manganese, cadmium or other elements or molecules in the glasses excited by the near-UV emission.

-**Michael A. Gachich**, University of Illinois Urbana-Champaign, Champaign, IL, USA





THIRD PLACE TIE

Energy transport in diffusive waveguides (*Nature Physics*, 2024). Light can propagate as a true waveguiding mode through diffusive materials, such as fog, tissue and resin (pictured). This is analogous to optical fibers, except the mechanism is diffusion using a contrast of scattering parameters to create localization. Image taken with a Nikon D750 using three colored diode lasers.

-Kevin J. Mitchell, University of Glasgow, UK



HONORABLE MENTION

A forgotten glass of ginger juice solves a geometrical problem. Ginger sediment has dried and cracked; illuminated from the bottom, the crack pattern is projected on the curved glass walls, forming swirly motifs.

> —**Sofia Magkiriadou**, University of Fribourg, Switzerland



HONORABLE MENTION

Solar flares and prominences are clearly visible in this image taken seconds before the end of totality for the 2024 North American solar eclipse. Careful observation reveals the irregular contour of the limb of the moon illuminated by the solar corona.

> -James Robert Leger, University of Minnesota, Plymouth, MN, USA



HONORABLE MENTION

A close-up SEM image of a microendoscope's stacked-lens system highlights the freeform top lens and the central hybrid lens, which features a diffractive element. The supports have a matte texture for stray-light management. Lens design by Printoptix.

> *—Andrea Bertoncini,* Nanoscribe, Eggenstein-Leopoldshafen, Germany



HONORABLE MENTION

Fluorescence from potassium chloride and magnesium chloride crystals as Alexa 488 dye dries on a coverslip, shown in pseudocolor.

-Siddharth Rawat, UNSW Sydney, Sydney, Australia

Visit optica-opn.org/contest/2024 for a look at all the submissions to this year's After Image photo contest.