Abstract

To disperse effectively the explosively launched spores of ascomycete fungi must eject through a thin layer of still air surrounding the fruiting body and reach air flows that can take the spores away from the parent fungus. Spores are very small and therefore experience enormous fluid drag. We use a phylogeny of over 110 ascomycete species to compare optimal and real spore shapes.

Bio:
Dr. Brenner received his BA from University of Pennsylvania in 1990 and his PhD from University of Chicago in 1994. He began his career at the University of Chicago (1994-95) and is currently the Glover Professor of Applied Mathematics and Applied Physics at Harvard University. Dr. Brenner’s research interests are in the area of applied mathematics: theoretical material science, theoretical biology, fluid mechanics, and atmospheric sciences. He received numerous honors and awards for his teaching and research accomplishments. He is currently a fellow of American Physical Society. He serves on the editorial boards of Physica D, Nonlinearity and SIAM Journal of Applied Mathematics and was the Associate Editor of Physical Review E. Professor Brenner is the Chair of Board of Governors, Institute for Mathematics and its Applications.