

Abstract Submitted
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Coordinated ejection of spores allows cup fungi to control surrounding air flows MARCUS ROPER, Dept. of Mathematics, U.C. Berkeley, AGNESE SEMINARA, Harvard School of Engineering and Applied Sciences, ANNE PRINGLE, Dept. of Organismic and Evolutionary Biology, Harvard University — The forcibly launched spores of ascomycete fungi must eject through a boundary layer of nearly still air in order to be dispersed by vigorous air flows beyond the boundary layer. Spores are microscopic in size and experience very high fluid drag that causes *single* spore to decelerate very quickly in flight. Experiments and asymptotic models show that coordination of the ejection of hundreds, thousands or tens of thousands of spores creates a favorable wind that carries spores across the boundary layer, and around any intervening obstacles.

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