

PHYSICAL MATHEMATICS SEMINAR

Physics of painting and writing

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*In painting, as in the other arts, there is absolutely no process,
however little it may be, that would agree to be put in formulas.*
Auguste Renoir (French painter)

ABSTRACT:

The history of painting started together with that of mankind and has seen the evolution of its variants from pre-historic cave paintings to watercolors, oil paintings, and even computer graphics of modern times. Defying the romantic notion of the great French painter, academic interests of a hydrodynamicist naturally go to the physical process that governs how liquids involved in painting like watercolors and oil paints are transported from a color box onto the canvas. While painting usually employs brushes and knives as tools for spreading paints, writing relies on pens whose history dates back to 3000 BC when a reed pen was used with papyrus in Egypt. Although fairly sophisticated writing instruments are widely chosen nowadays, the fundamental action of the pen, to deliver liquid ink to an absorbent surface, has remained unchanged for five thousand years. In this talk, we mathematically formulate and quantitatively study some physical problems occurring in painting and writing.

Bio:

Ho-Young Kim is associate professor of mechanical engineering at Seoul National University, Korea. He received his B.S. degree from Seoul National University, and M.S. and Ph.D. degrees from MIT. His research activities center around classical mechanics of solids and fluids at their interfaces. URL: <http://fluids.snu.ac.kr>

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2:30 PM

Building 66, Room 144

*Reception following in Building E17, Room 401A
(Math Dept. Common Room)*

<http://math.mit.edu/pms/fall13/>



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