

KAAPI WITH KURIOSITY

How fish swim

Fish and other aquatic animals swim in myriad ways. From the fast swimming shark where mostly just the tail wags, to the eel where a wave moves down its whole body as it swims forward, to the sting ray that seems to 'fly' through water. Are fish more efficient swimmers than man-made underwater vehicles like submarines? Are their wakes 'quieter'? Can we indeed define an efficiency for a self-propelling body moving at constant speed? Many fish bodies and their fins and tails are highly flexible. Is flexibility important? How much flexibility is good? Do skins of aquatic animals have special textures that reduce drag? In this talk I will discuss some of these questions, answers to which are mostly unknown.

JAYWANT H. ARAKERI

Jaywant H Arakeri is in the faculty of the Mechanical Engineering department the Centre for Product Design and Manufacture at the Indian Institute of Science, Bangalore. All his education has been in aeronautical engineering, BTech (IIT, Madras), ME (IISc) and PhD (Caltech). His research is primarily focused on the fundamental understanding of various phenomena in fluid mechanics. Some of the questions being addressed in his lab relate to the role of turbulence in condensation and droplet growth in clouds; flows around flexible surfaces like fish tails and heart valves; instability of unsteady flows, including those with curvature, like those found in arteries; heat and moisture loss from soils and leaves.

Sunday, 4 pm, 17th March 2019,
Jawaharlal Nehru Planetarium, Bengaluru

Register: bit.ly/kwk2019mar



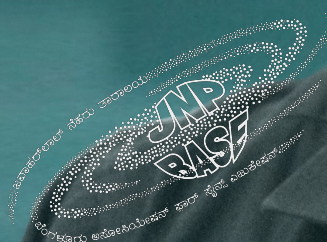
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