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How cats and dogs drink differently? SUNGHWAN JUNG, SEAN GART, JAKE SOCHA, Virginia Tech, PAVLOS VLACHOS, Purdue University — Drinking is defined as the animal action of taking water into the mouth, but to fluid mechanists, it is simply one kind of fluid transport phenomena. Classical fluid mechanics show that fluid transport can be achieved by either pressure-driven or inertia-driven processes. In a similar fashion, animals drink water using pressure-driven or inertia-driven mechanisms. For example, domestic cats and dogs lap water by moving the tongue fast, thereby developing the inertia-driven mechanism. We will investigate how cats and dogs drink water differently and discuss the underlying fluid mechanics.

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