

Abstract Submitted
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Cohesion of wet grains at high liquid content PASCAL RAUX¹,
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(France) — Adding liquid to a granular medium highly increases its cohesion, due
to the creation of capillary bridges between grains. From the paste obtained by
mixing a large amount of water to spherical glass beads ($\sim 100 \mu\text{m}$), we cast a com-
pact beam. We study its rupture under its own weight, then deduce the cohesive
strength, which increases with water content. This behavior diverges from what is
expected from individual capillary bridges, suggesting a role of the liquid repartition
in the granular medium.

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