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In a sea of sticky molasses: The physics of the Boston Molasses Flood NICOLE SHARP, FYFD, JORDAN KENNEDY, SHMUEL RUBINSTEIN, Harvard University — On January 15th, 1919, shortly after 12:40 pm local time, a giant storage tank collapsed in Boston's crowded North End, releasing more than 8.7 million liters of molasses. Contemporary accounts estimated the initial wave was 7.6 meters tall and moved at more than 15 m/s. In moments, molasses engulfed the Commercial Street area, flattening buildings, damaging the elevated train, killing 21 people, and injuring 150 more. Molasses is a viscoelastic fluid 1.5 times as dense as water with a viscosity roughly 4000 times greater. This talk will explore the physics of the Boston Molasses Flood, including the effects of temperature fluctuations and molasses rheology on events leading up to the tank's collapse and their impact on subsequent rescue efforts.

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