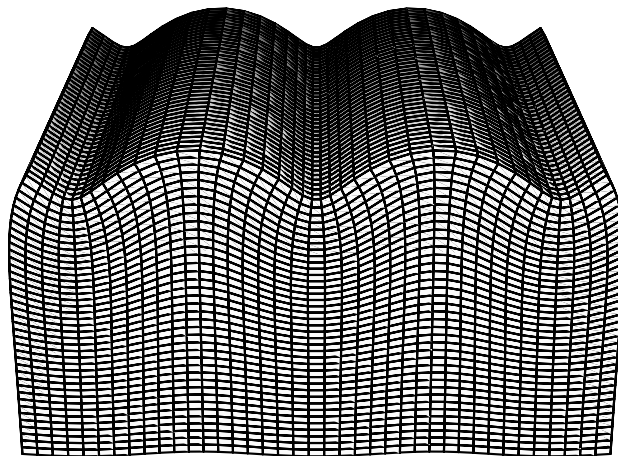


# FINAL YEAR PROJECT with Michel DESTRADE

## VISUALIZATION OF ELASTIC WAVE MOTION

Mechanical waves propagate not only in fluids but also on the surface of and inside solids such as the Earth (seismic waves), engineering devices (structural noise or music), or soft tissues (ultrasonic imaging). Celebrated examples of elastic waves include the Rayleigh wave (solid/vacuum interface), the Stoneley wave (solid/solid interface), the Lamb wave (layer), and many more.

During this FYP, we will collect and write down the field equations describing these waves, and we will use some software to visualize the mechanical displacements in the solid and create frame-by-frame animations of the wave motions.

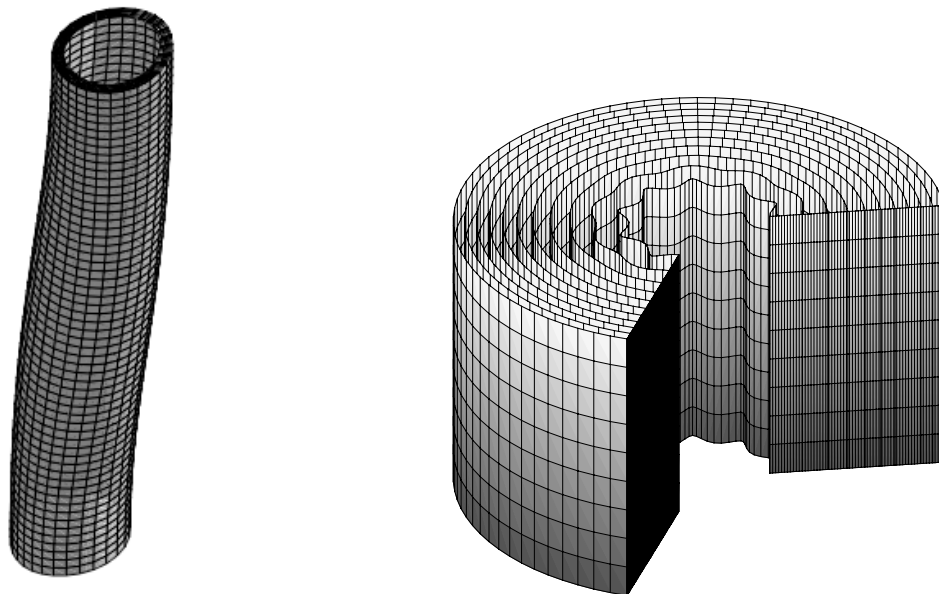


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# FINAL YEAR PROJECT with Michel DESTRADE

## VISUALIZATION OF ELASTIC INSTABILITIES

When an elastic solid is subject to a large load, it deforms smoothly for a while until it eventually becomes unstable. Examples include the buckling of a column and the appearances of wrinkles on a bent block, a twisted tube, or a compressed spherical cap. During this FYP, we will collect and write down the linearized field equations describing these instabilities. Then we will use some software to visualize the mechanical displacements in the solid as it is deformed until it becomes unstable, in order to create frame-by-frame animations of the instability phenomena.



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