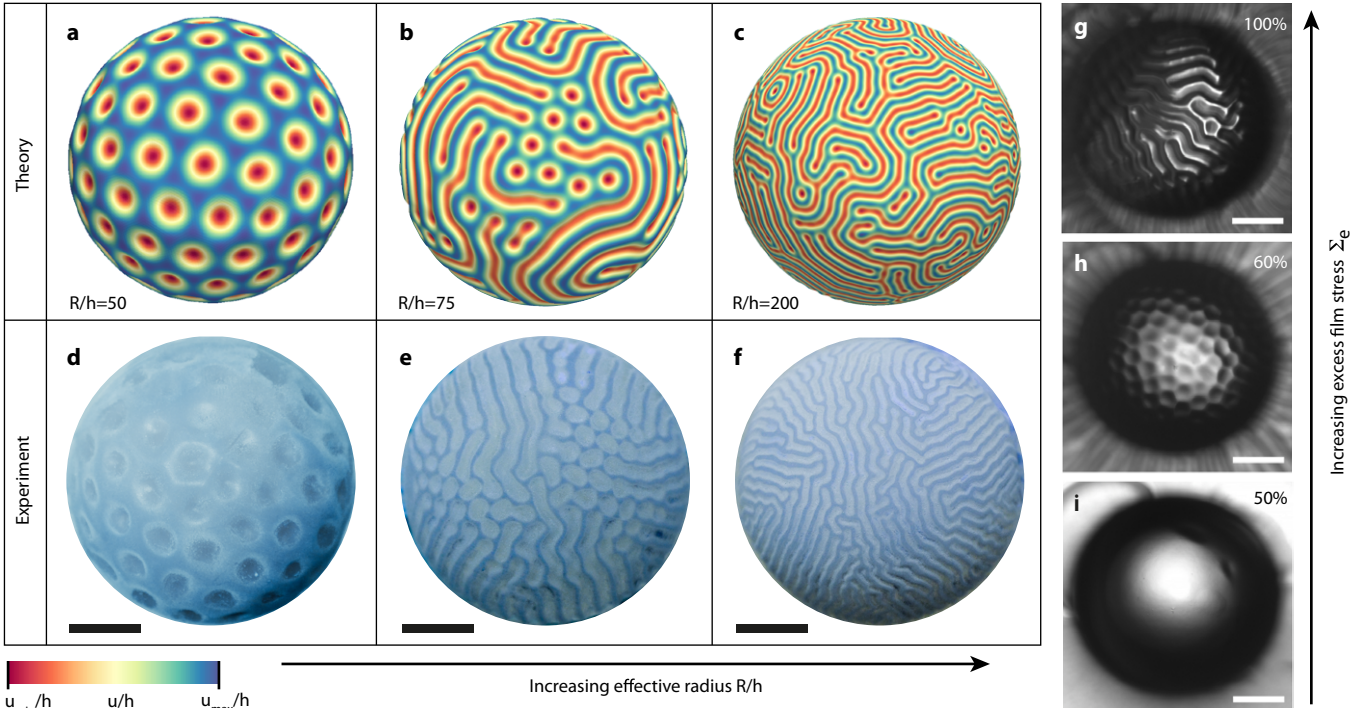

Theory
Experiment
a
b
c
d
e
f
R/h=50
R/h=75
R/h=200
g
h
i
100%
60%
50%
Increasing excess film stress Σ_e
u_{min}/h
u/h
u_{max}/h
Increasing effective radius R/h