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Dynamics and line tension in thin nematic films
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LPS, ENS — Line tension is important in phase transitions for mono-
layer systems and in biophysics. Nevertheless, experimental studies
about hydrodynamics with line tension are still lacking compared to
surface tension ones. We consider here a thin nematic film deposited at
the air/water interface with hybrid anchoring conditions. This situation
is very special because instability patterns exist and the nematic film
coexists with a trilayer structure which leads to a line tension between
the nematic and the trilayer. We made some dynamic measurements
of line tension by analyzing the relaxation of two domains after coa-
lescence. We propose here a comparison between dynamic and static
measurements. We then study the early stage of coalescence between
two nematic domains with high speed camera. We will explain why this
“true” 2D case of coalescence is different from the usual 2D case with
surface tension.

Prefer Oral Session
 Prefer Poster Session

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