# Article information:

Transition from dripping to jetting | Journal of Fluid Mechanics | Cambridge Core
<https://www.cambridge.org/core/journals/journal-of-fluid-mechanics/article/transition-from-dripping-to-jetting/1CB4DAF75DA06844EF68E6E5174E1AA7>

# Article summary:

1. The article examines the critical Weber number at which the transition from dripping to jetting occurs when a Newtonian liquid is injected with a velocity through a tube.

2. The article extends Taylor's (1959) model for the recession speed of a free edge and obtains an exact solution which includes gravity and inertia effects.

3. The solution provides a criterion for the transition which is shown to occur at a critical Weber number, and this value is found to be in good agreement with existing experimental values as well as new measurements performed over a wide range of Bond numbers.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article “Transition from Dripping to Jetting” by Christophe Clanet and Juan C. Lasheras is an informative and reliable source of information on the transition from dripping to jetting when a Newtonian liquid is injected with a velocity through a tube. The authors provide an extensive review of existing literature on the topic, as well as their own research findings, in order to support their conclusions. Furthermore, they present their results in an organized manner that allows readers to easily follow their reasoning and understand their findings.

The authors also provide evidence for their claims by citing relevant sources throughout the article, such as Taylor’s (1959) model for the recession speed of a free edge, and providing detailed calculations for their proposed solutions. Additionally, they present data from experiments conducted over a wide range of Bond numbers in order to validate their results. This helps ensure that readers can trust the accuracy of the information presented in this article.

The only potential bias that could be identified in this article is that it does not explore any counterarguments or alternative theories regarding the transition from dripping to jetting when injecting liquids through tubes. However, given that this article focuses primarily on presenting research findings rather than exploring different perspectives on this topic, this bias does not significantly detract from its overall reliability or trustworthiness.

# Topics for further research:

* Jetting of Newtonian liquids
* Jetting of non-Newtonian liquids
* Jetting of viscous liquids
* Jetting of non-viscous liquids
* Jetting of liquids through tubes
* Jetting of liquids through nozzles

# Report location:

<https://www.fullpicture.app/item/8e260fc5cbfd7558989b5f43d10a4d2f>