# Article information:

Direct measurement of skin-friction in shock/boundary-layer interaction flows - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S0955598622001285>

# Article summary:

1. The article discusses the direct measurement of skin friction in shock/boundary-layer interaction flows.

2. It examines two types of direct measurement methods: nulling and non-nulling, and describes the performance assessment of shear-mode type sensors in hypersonic impulse facilities.

3. The article also introduces a strain-gauge-based cantilever-type sensor that is practically insensitive to acceleration, temperature, and pressure (gradient) loads, which was tested in an SBLI flow field induced by an oblique shock with a flow turn angle of 15°.

# 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 provides a comprehensive overview of the direct measurement of skin friction in shock/boundary-layer interaction flows. The author presents two types of direct measurement methods – nulling and non-nulling – as well as their respective performance assessments in hypersonic impulse facilities. Additionally, the article introduces a strain-gauge based cantilever type sensor that is practically insensitive to acceleration, temperature, and pressure (gradient) loads.

The article appears to be reliable overall; however, there are some potential biases that should be noted. For example, the author does not provide any evidence for the claims made about the performance assessment of shear mode type sensors or for the effectiveness of the strain gauge based cantilever type sensor introduced in this study. Additionally, there is no discussion about possible risks associated with using these sensors or any counterarguments to their use. Furthermore, while the author does mention some potential issues with oil leakage from sensors and vibration sensitivity with rubber filled sensors, they do not explore these topics further or present both sides equally.

In conclusion, while this article provides a comprehensive overview of direct measurements for skin friction in shock/boundary layer interaction flows, it could benefit from more evidence for its claims as well as further exploration into potential risks associated with using these sensors and counterarguments to their use.

# Topics for further research:

* Performance assessment of shear mode type sensors
* Risks associated with using skin friction sensors
* Counterarguments to using skin friction sensors
* Oil leakage from sensors
* Vibration sensitivity of rubber filled sensors
* Strain gauge based cantilever type sensor performance

# Report location:

<https://www.fullpicture.app/item/b8c7e5d03a5af5a745d4fac3bb89111f>