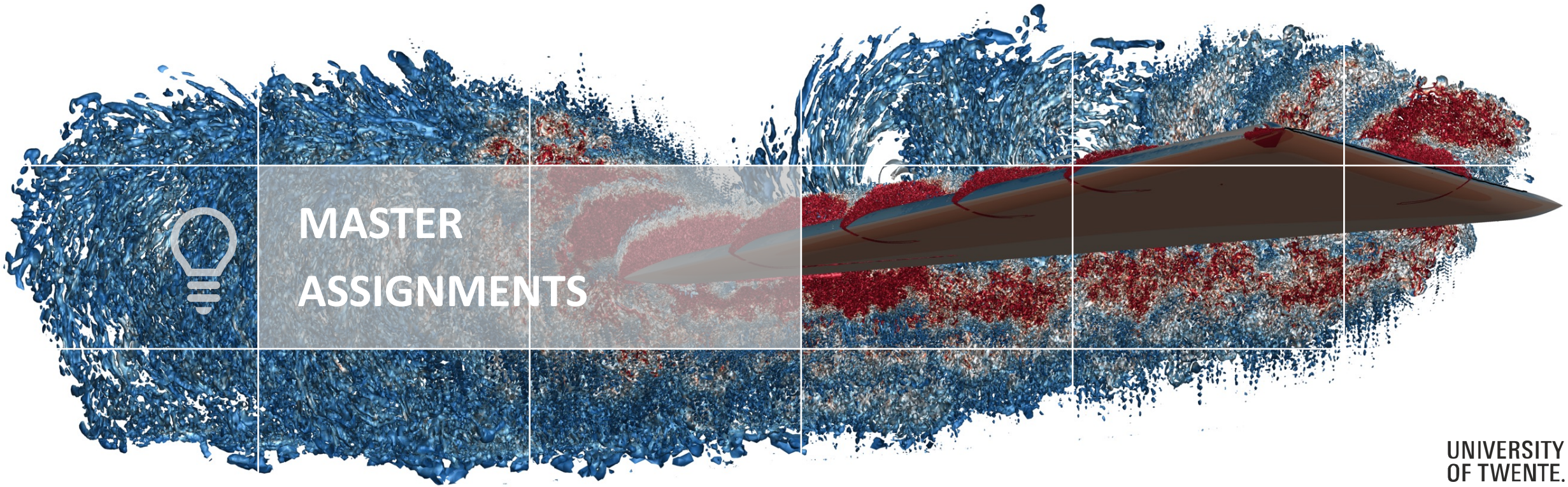
Exploring Frontiers:
Simulation, Turbulence and Machine Learning



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We all have an intuitive understanding of what **turbulence** is, and examples of turbulent flow are familiar to us from our daily lives. Take a look at this candle …

But what exactly is turbulence and how does it occur?

Turbulent Flow
→ "Chaotic"

Laminar Flow
→ "Ordered"

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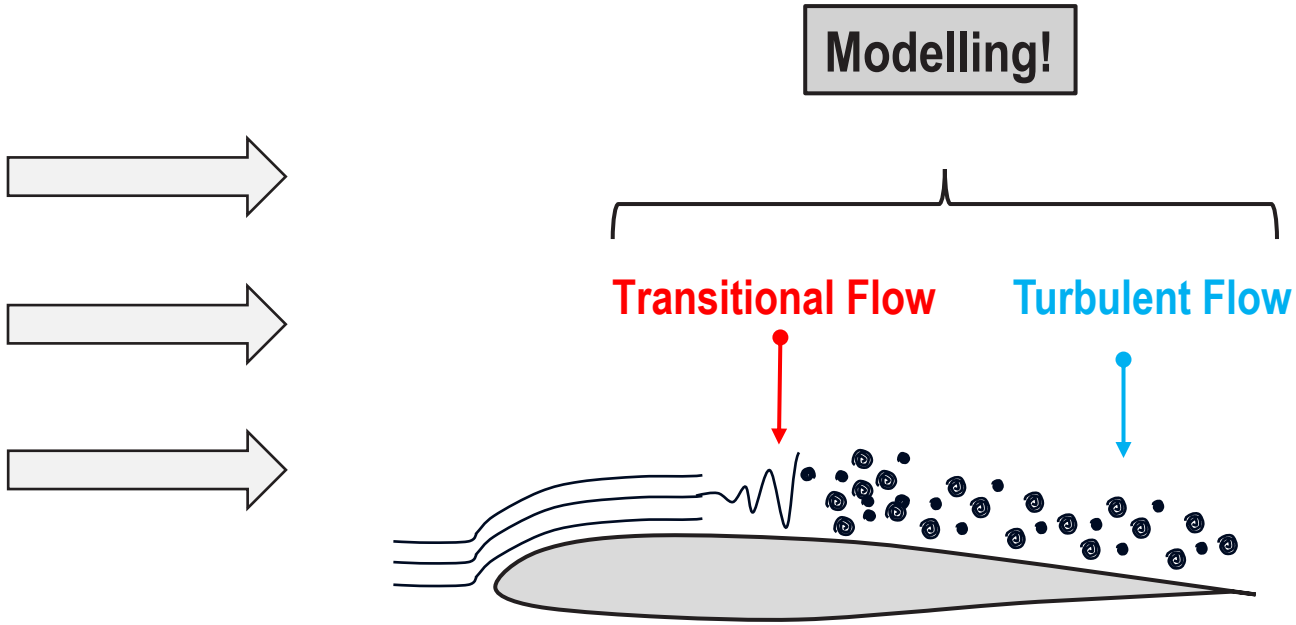
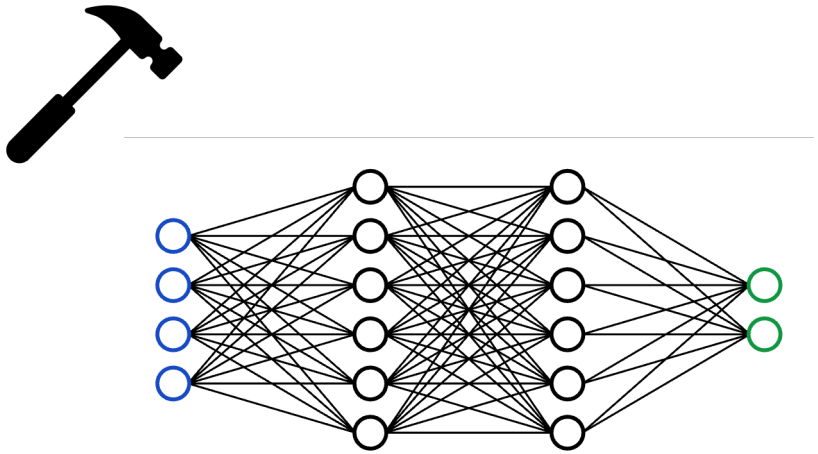
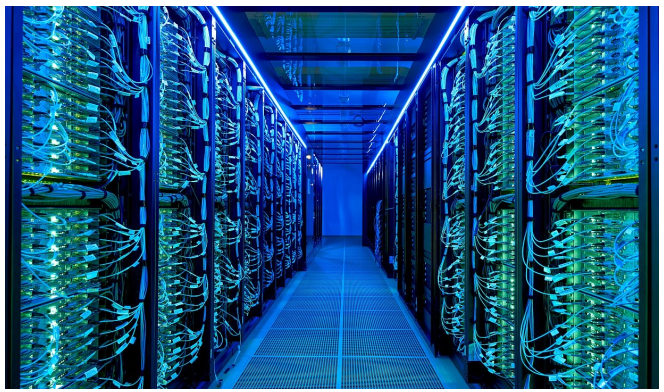
From an engineering and physics point of view both the origin of turbulence and the turbulence itself are hard to understand and predict.



Machine learning methods present a promising avenue for enhancing modelling approaches in both transitional and turbulent flows.



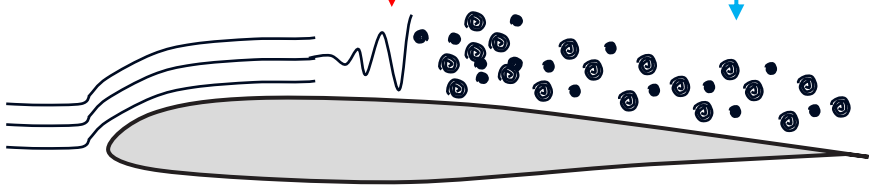


Modelling!

Flow Physics!

Transitional Flow

Turbulent Flow



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Piqued your interest?

Reach out!

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REFERENCES

[1] https://www.youtube.com/watch?v=4tgOyU34D44 [08.11.23]
[2] https://aerodside.com/home/ [08.11.23]

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