equadratures

Integrate, predict, explain.

`pip install equadratures`

equadratures.org

Platform

equadratures creates Digital Twin models of complex, high-dimensional systems in a computationally efficient way. the platform can be applied for modelling tasks like:

- *simulation* - understand system performance in diverse environmental conditions
- *design* - iterate on feature choices within manfacturing constraints
- *forecasting* - test the impact of change & uncertainity on system resiliency

to support our growing community, the equadratures team offers **hands-on workshops** for adapting the software to domain-specific problems. <u>Sign up here to join us.</u>

eq is available as an open-source Python package and can integrate with Blender for 3D visualisation
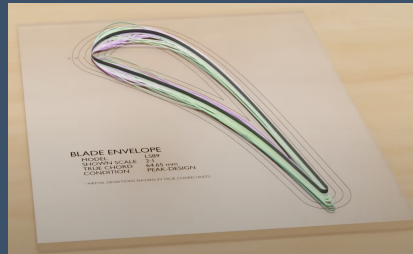
jet engine blade design patterns created in eq and visualised in Blender

compared to neural networks, eq models:

- **work with small datasets**
- **train quickly on CPU**
- **are interpretable by design**

Current use cases

aerospace

Rolls-Royce has succesfully applied equadratures to optimise jet engine design to improve energy efficiency. The team was able to better explore and visualise the design space of their engine blades.

<u>Click here for the case study.</u>

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coastal sciences

The United States Geological Survey (USGS) has used equdratures to model coastal erosion, computing sensitive indices that most impact environmental change for monitoring and forward-planning simulation.

<u>Click here for the case study.</u>

≋USGS
science for a changing world

Support & funding

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