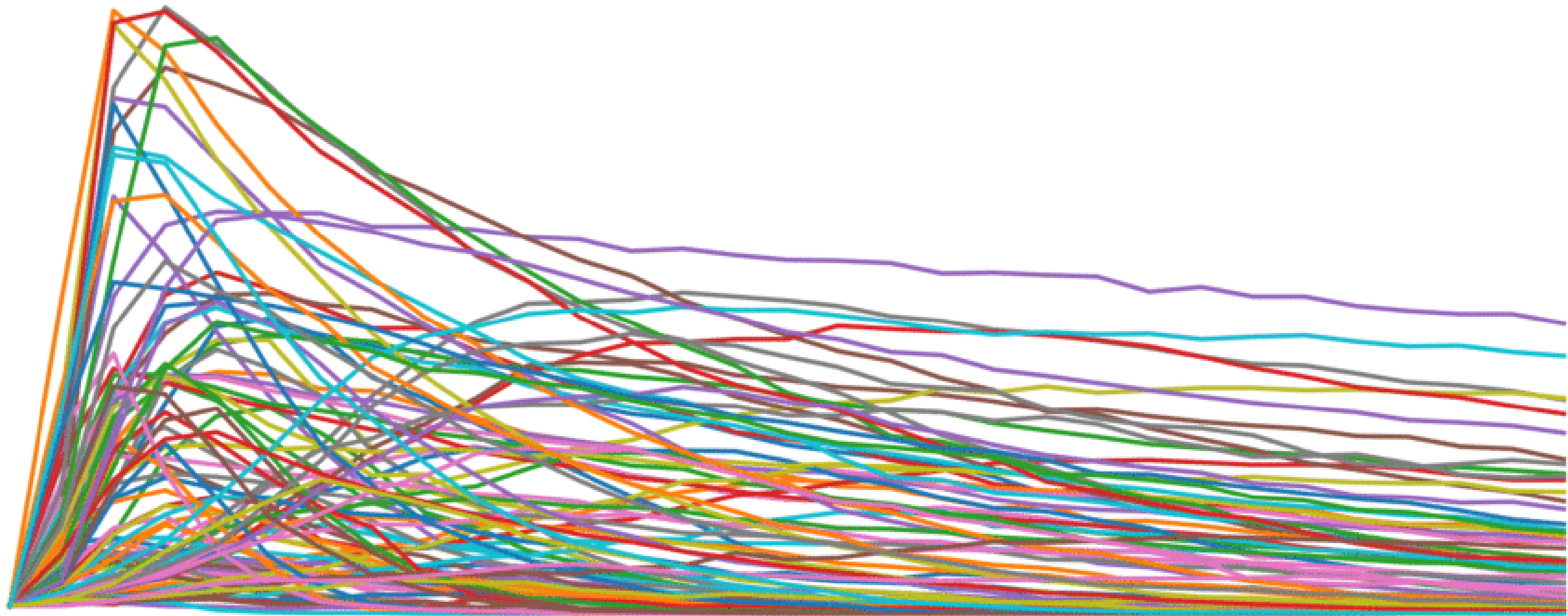
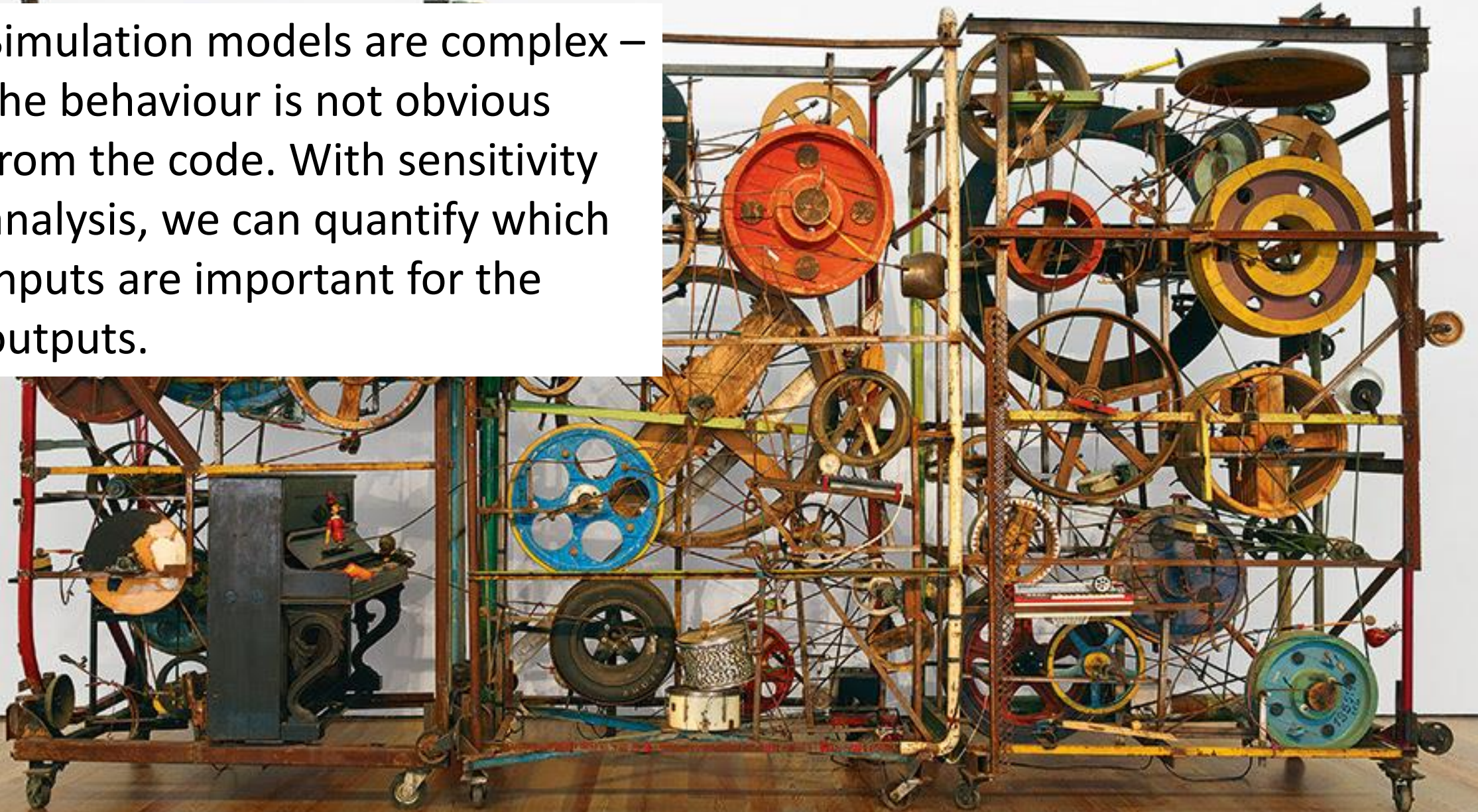


# SENSITIVITY ANALYSIS MADE EASY



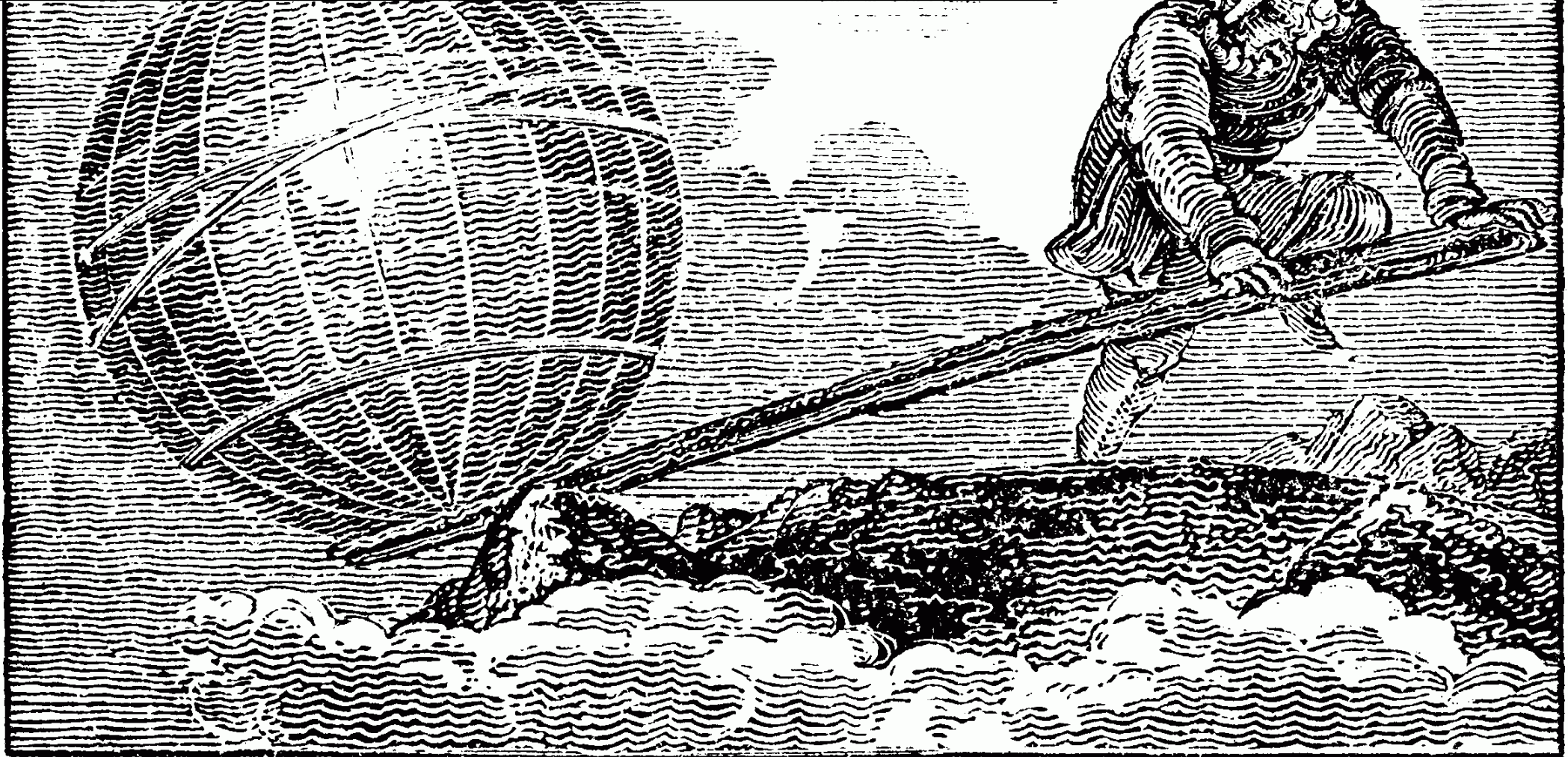
Simulation models are complex – the behaviour is not obvious from the code. With sensitivity analysis, we can quantify which inputs are important for the outputs.



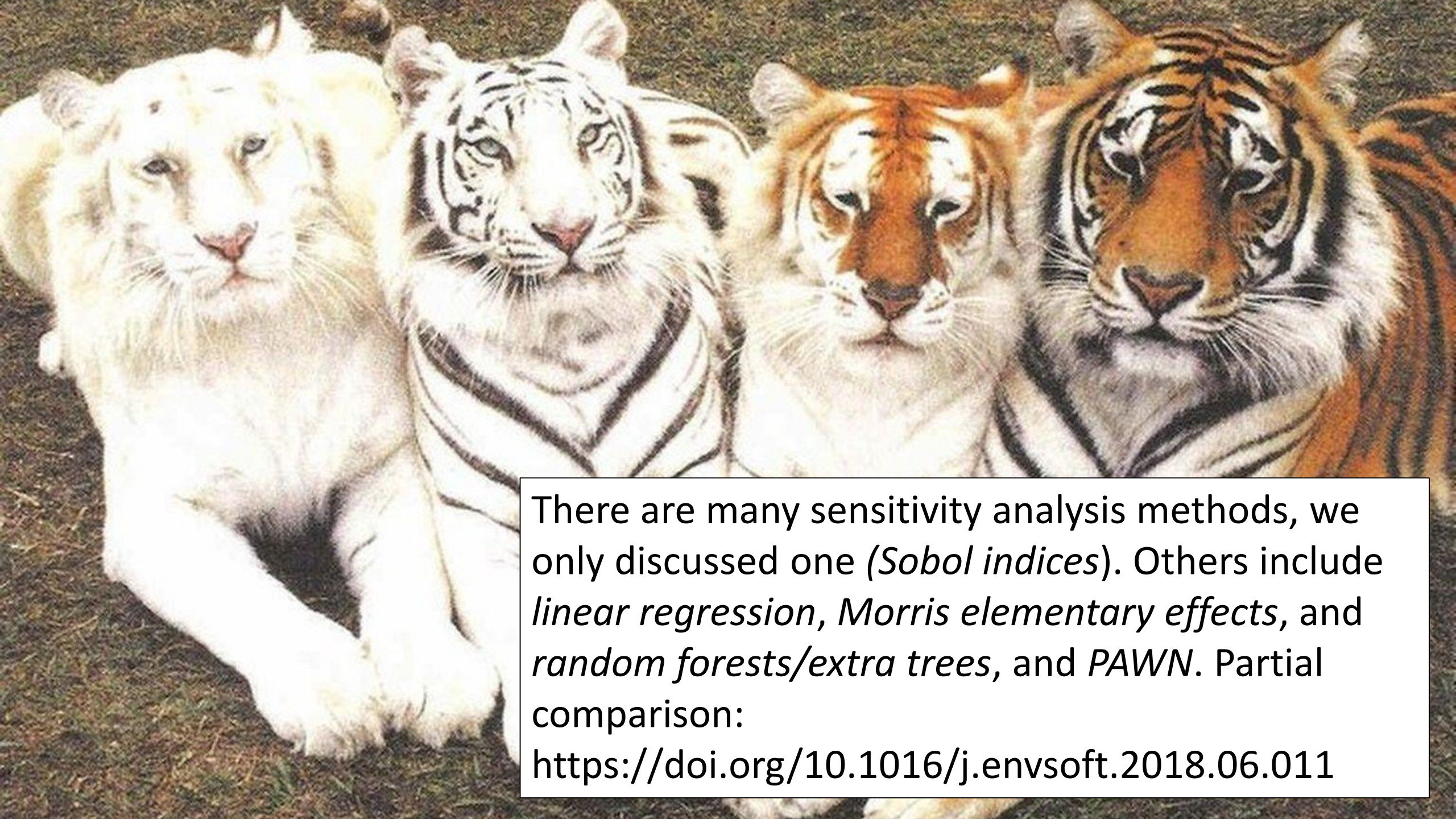


Interesting questions we can answer with SA:

- Which inputs are most influential?
- Could some inputs be left out or fixed?
- What are the most effective intervention points?







There are many sensitivity analysis methods, we only discussed one (*Sobol indices*). Others include *linear regression*, *Morris elementary effects*, and *random forests/extra trees*, and *PAWN*. Partial comparison:

<https://doi.org/10.1016/j.envsoft.2018.06.011>



**WE WANT YOU**



**TO ALWAYS DO  
SENSITIVITY ANALYSIS**

# Questions? Feedback? Collaborations?



Patrick Steinmann  
Wageningen University & Research  
[patrick.steinmann@wur.nl](mailto:patrick.steinmann@wur.nl)  
@steipatr



Mikhail Sirenko  
Delft University of Technology  
[m.sirenko@tudelft.nl](mailto:m.sirenko@tudelft.nl)  
@mikhailsirenko



Raphaël Klein  
Delft University of Technology  
[r.klein-1@tudelft.nl](mailto:r.klein-1@tudelft.nl)  
@RaphaelKI1