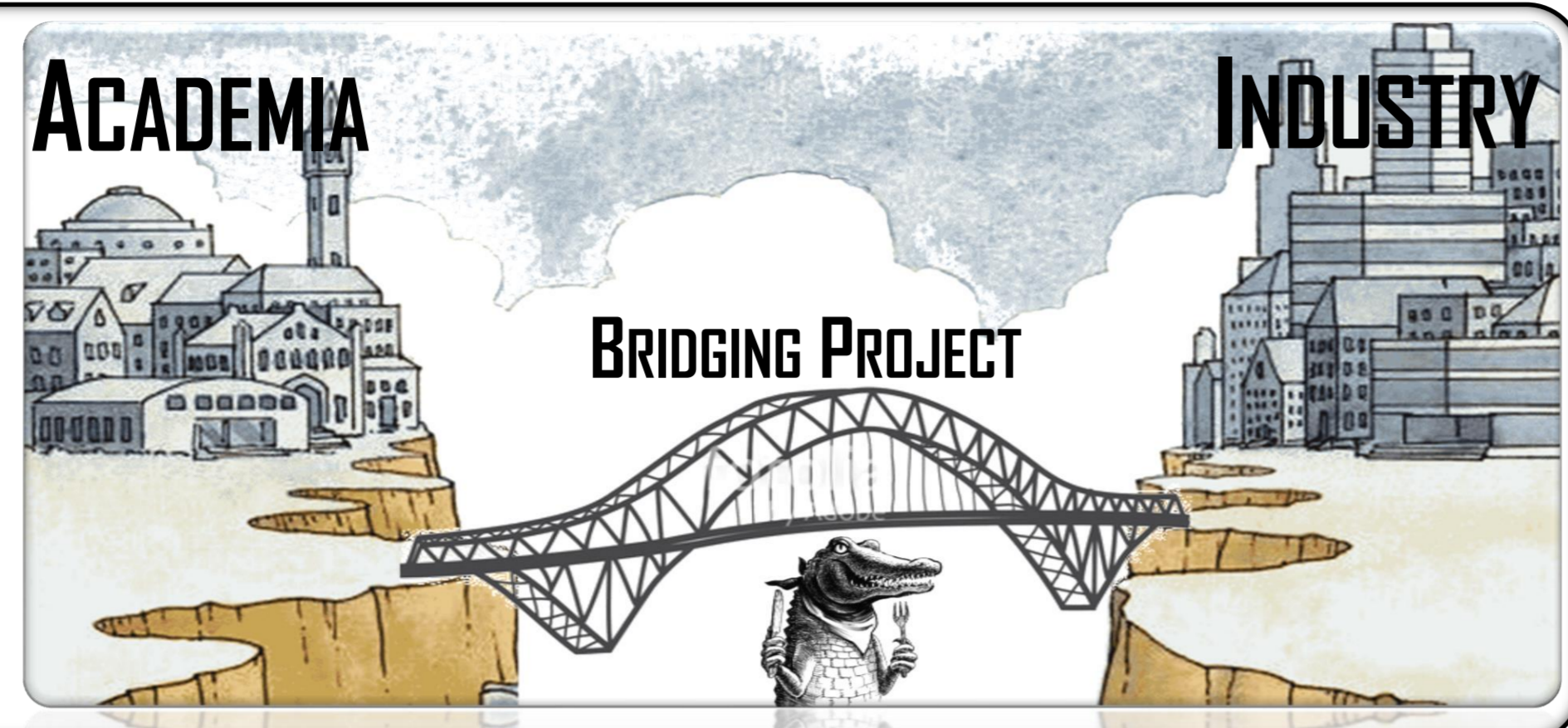


USER-FRIENDLY NONLINEAR FRAMEWORK FOR MIMO INDUSTRIAL MEASUREMENTS

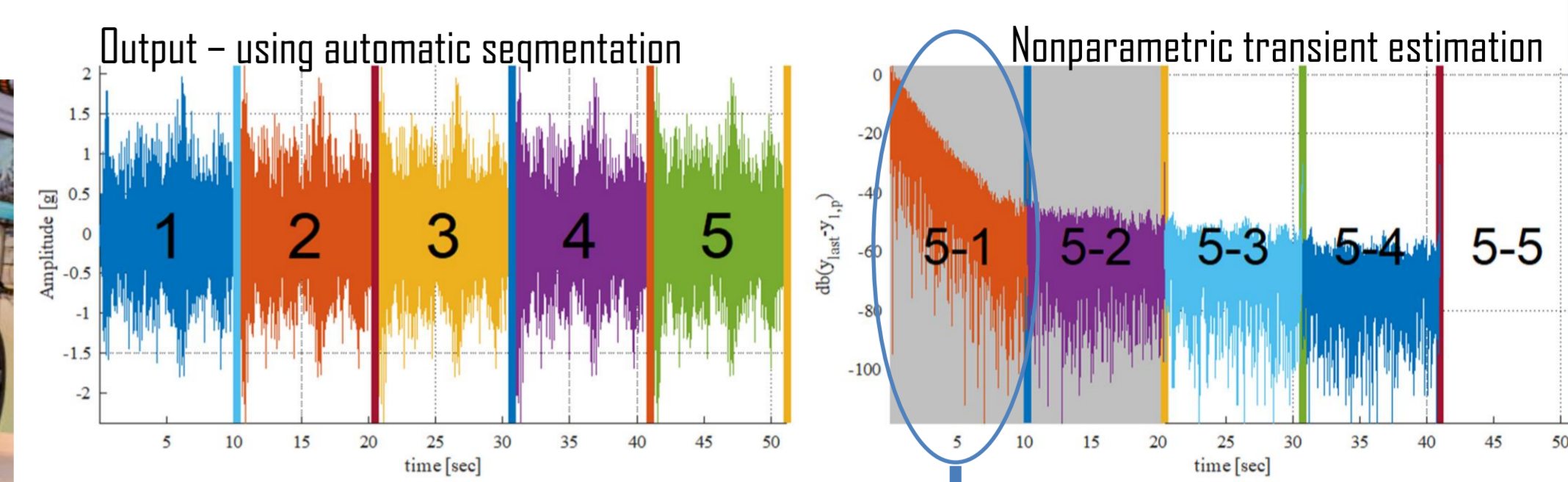
GOAL

Automated framework for vibro-acoustic measurements to tell

- if the system is linear,
- if a linear model is safe to use
- how much is the potential by using a nonlinear model

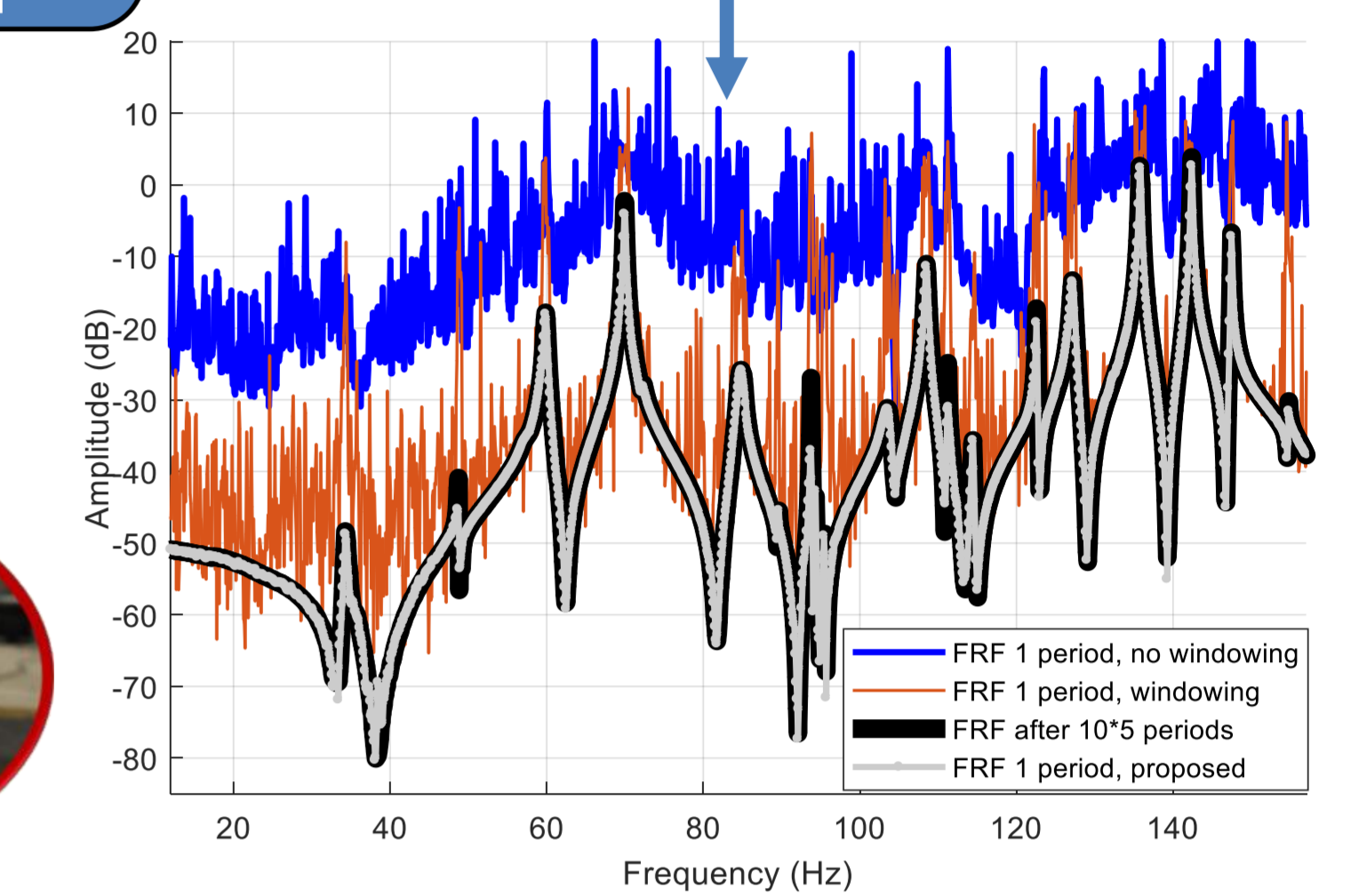


AUTOMATIC TRANSIENT DETECTION AND ELIMINATION

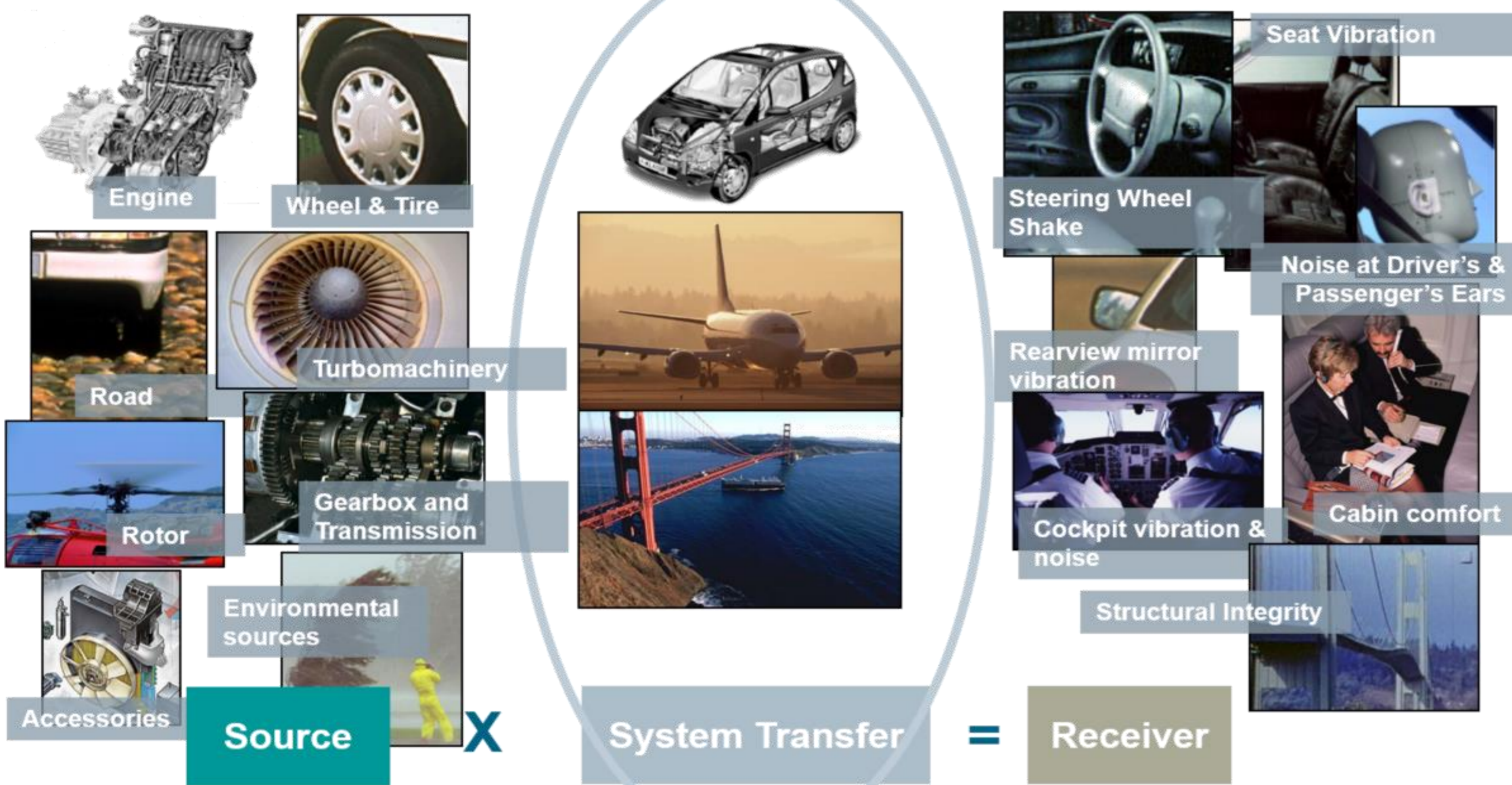


- Nonparametric analysis
- data segmentation
- transient analysis
- correlation analysis
- fault detection

Estimating on transient data

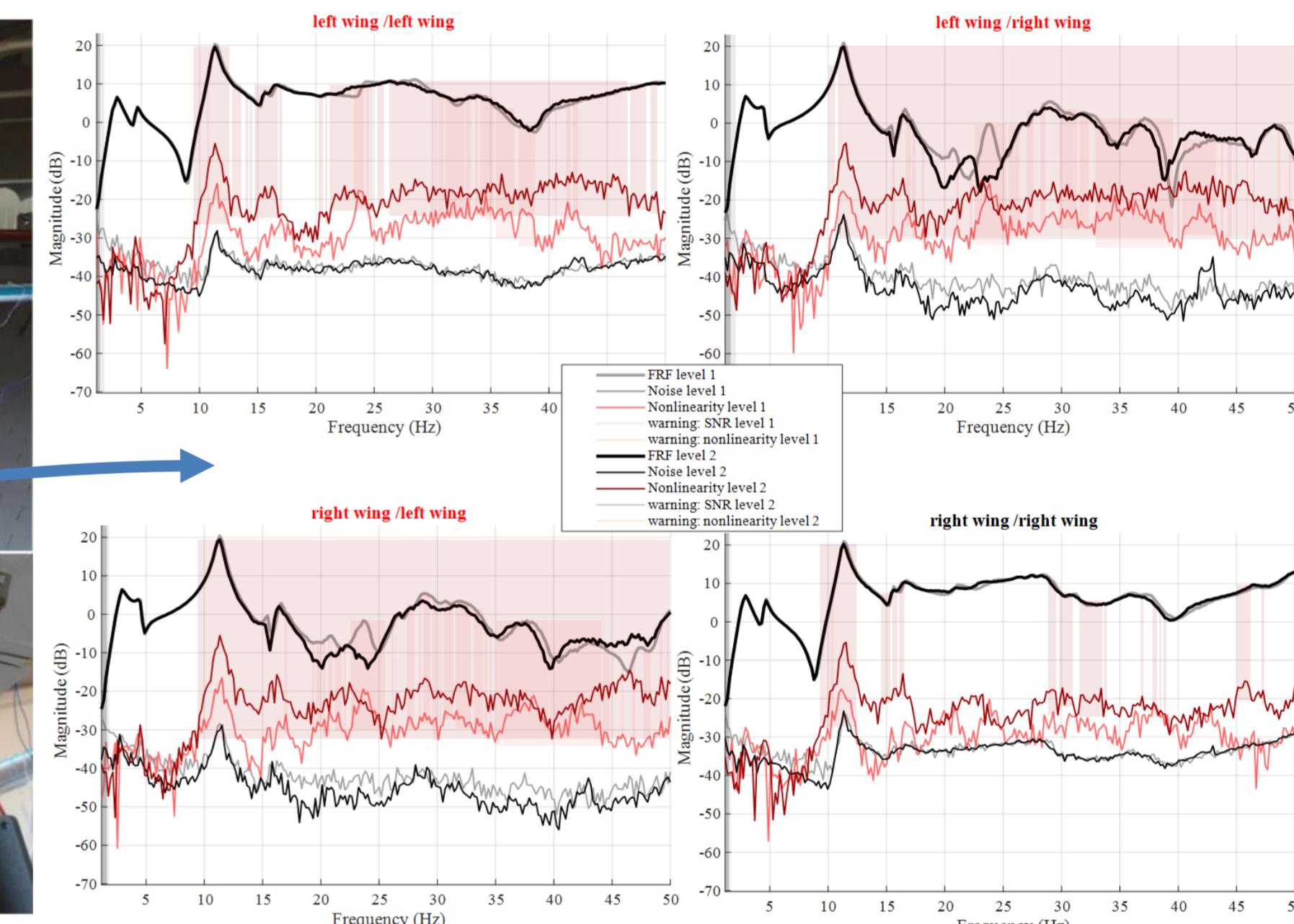


APPLICATIONS



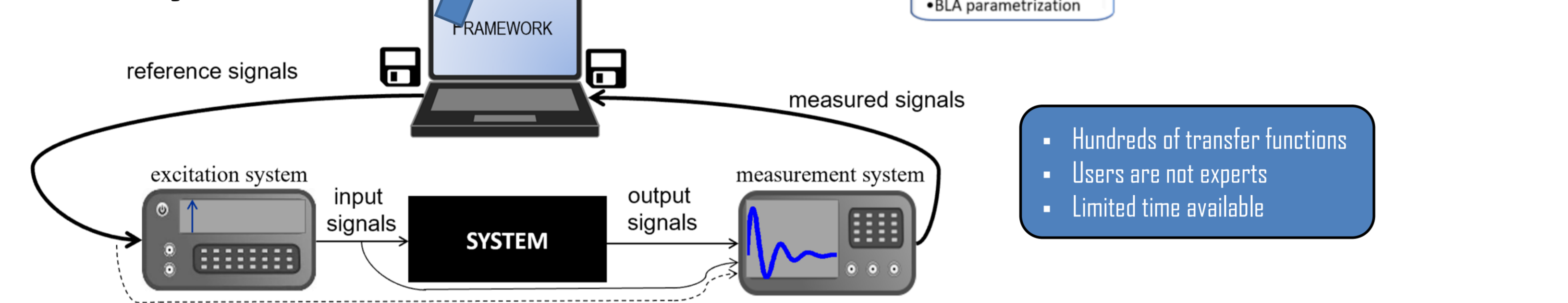
AUTOMATIC ANALYSIS

- Multilevel FRF estimates
- Highlighting the problematic parts
- User defined significance levels

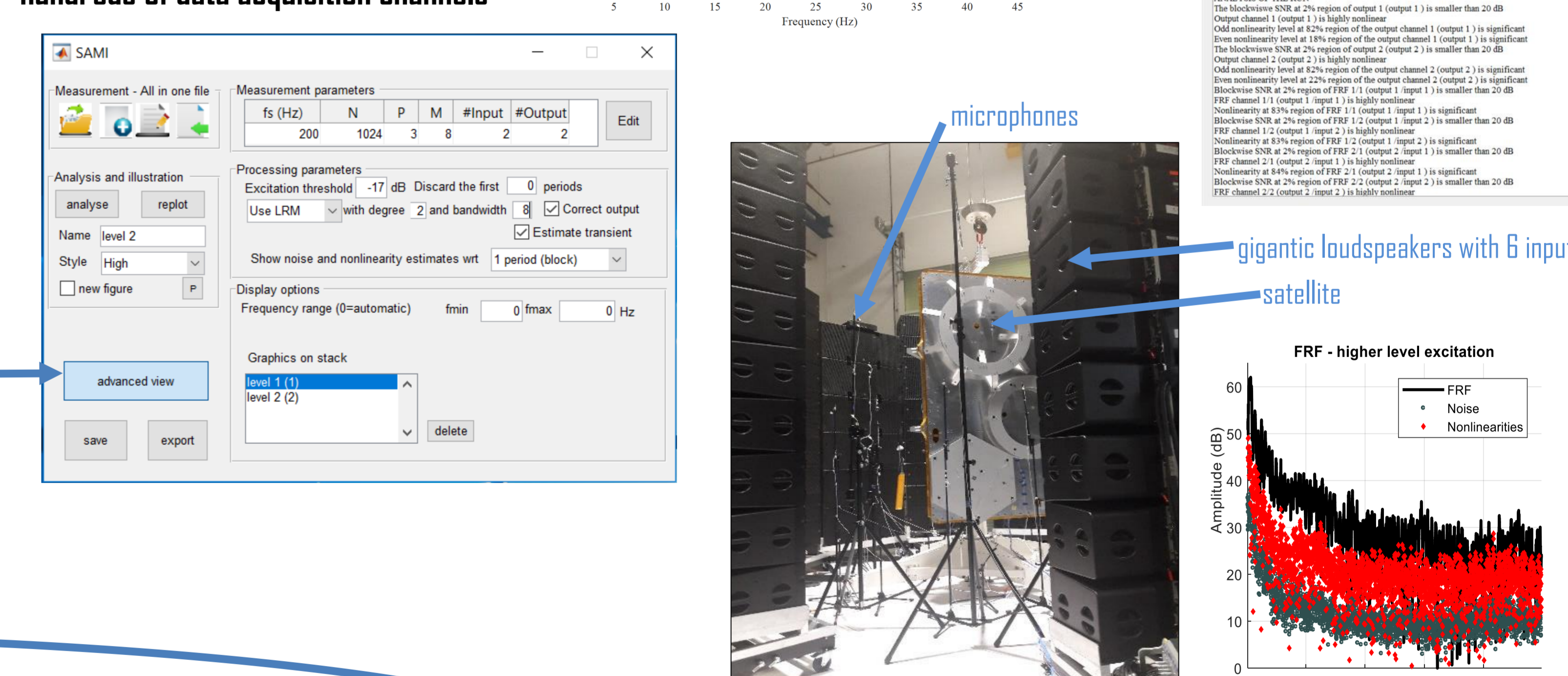
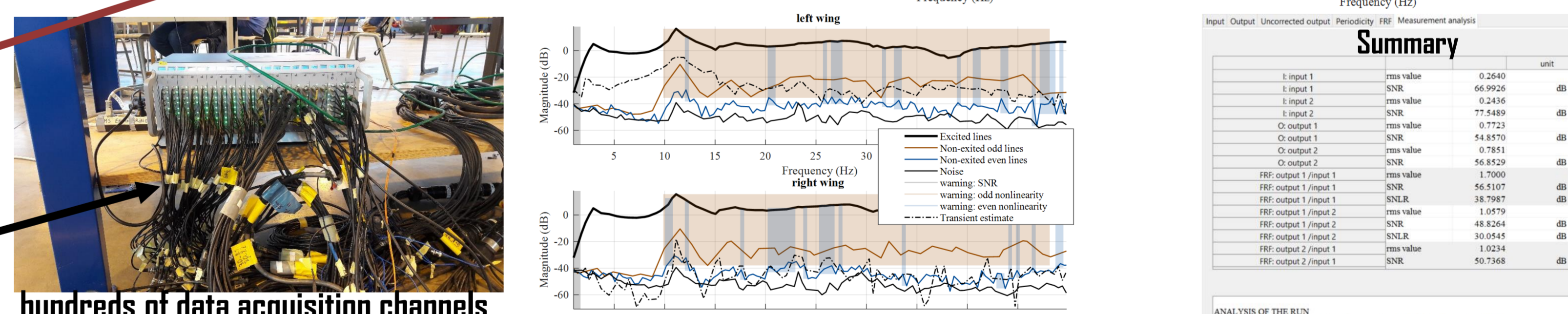
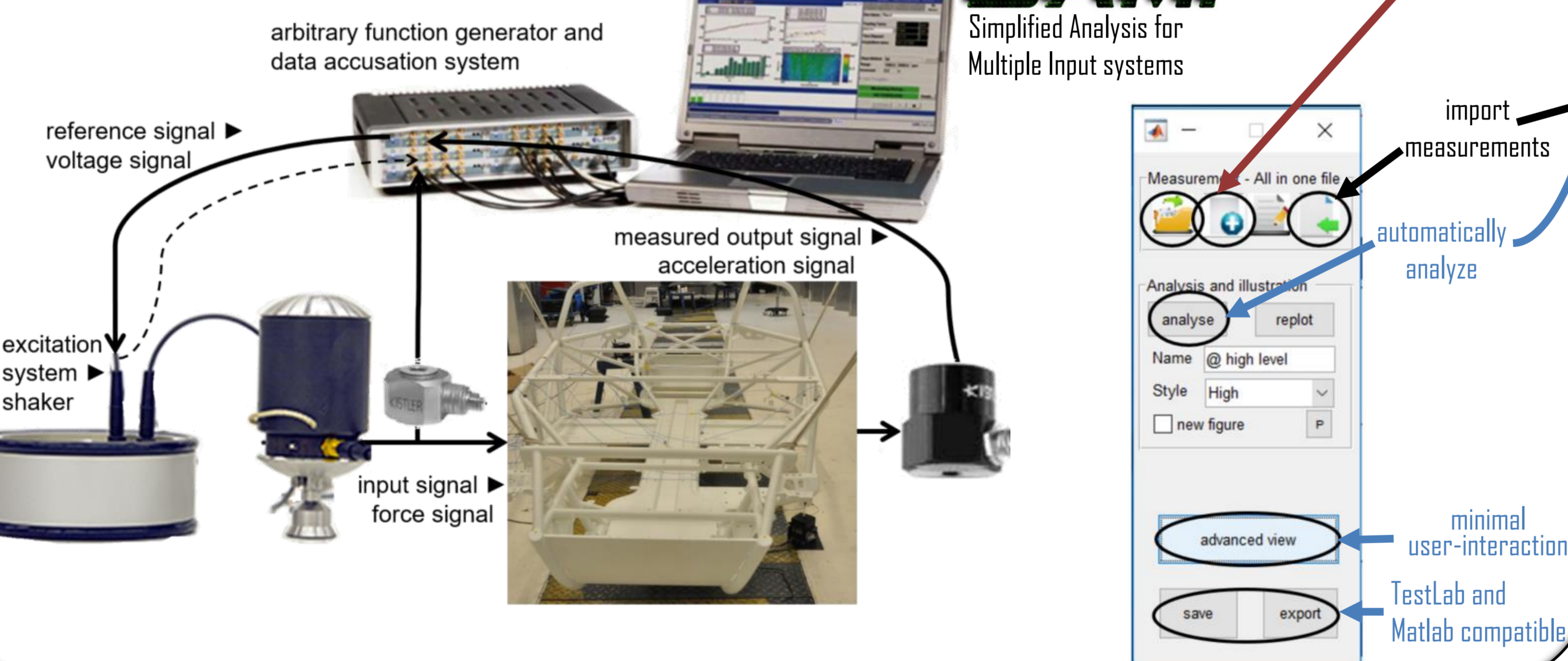


NONPARAMETRIC FRAMEWORK

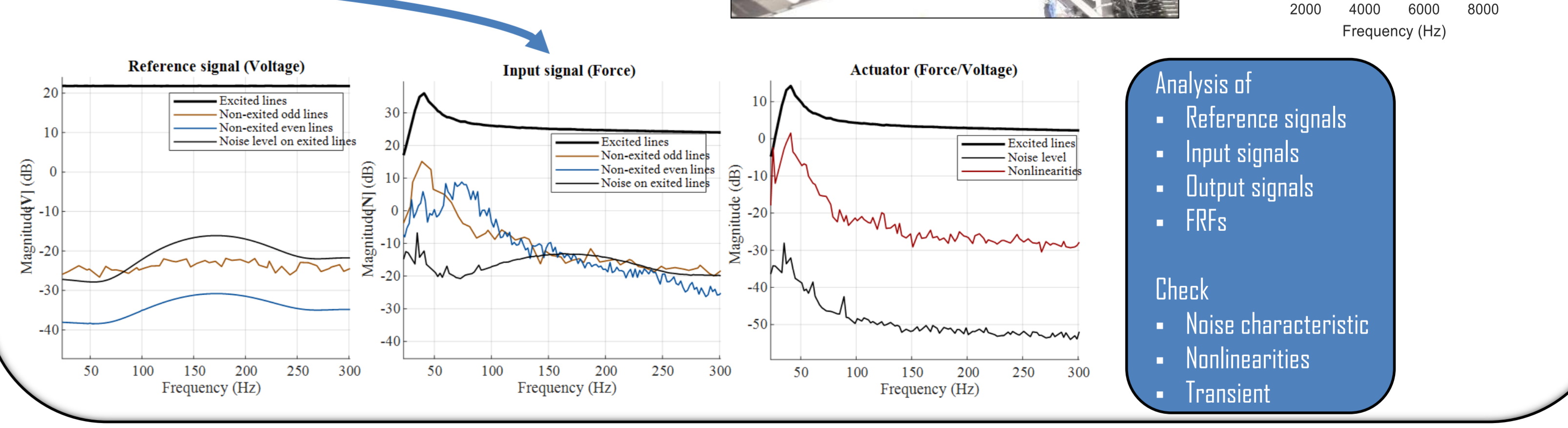
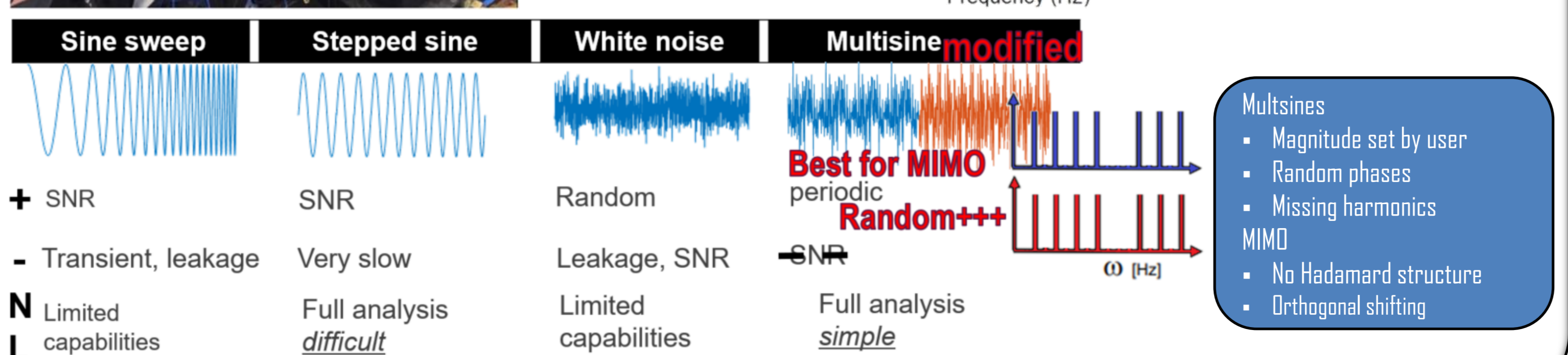
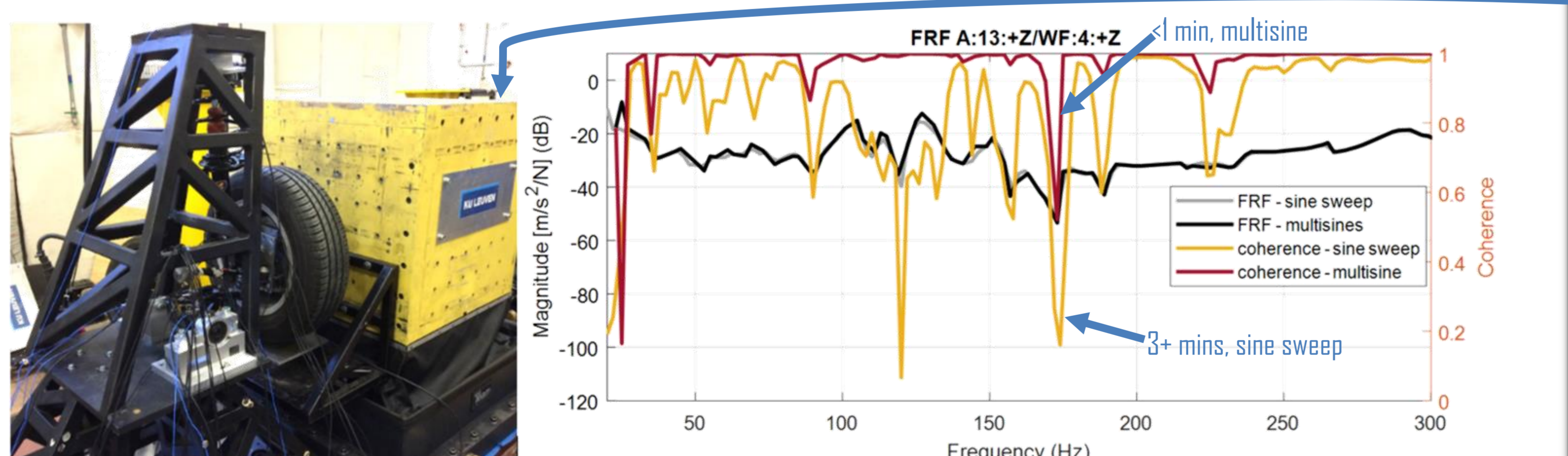
Theory



Practise



EXCITATION SIGNAL DESIGN



SUMMARY

- + User-friendly methods
 - + Simple extension of LTI framework
 - + Automatic processing without user interaction
 - + Tested on real-life measurements and simulations
- Demo version of the toolbox available for academic usage by request