

S - main script to call

S - 3 structures as input:

1, data set

2, measurement settings

3, what to calculate

data set:

generated/measured waveform

in form of pairs x,y

measurement settings:

parameters of DAC/ADC etc, uncertainties

what to calculate:

variable, (algorithm), uncertainty

S - returns:

mode calc

variable, uncertainty

or: list of missing parameters

or: missing algorithm file

or: one of structures incorcet

mode list

list of variables, for all variables possible algorithms

mode parameters

list of parameters for selected variables at specific algorithm

A_info: gives informations about specific **A**:

what it can calculate

what it needs

translates rigid structures to values required

by the **A** itself

returns:

translate output of **A** to rigid structure

SA - select algorithm

measurement conditions: part data character

single tone, harmonic,

returns proper algorithm for required variable, based on Rado's table

V - variator:

variates variables according to uncertainties

what about covariances? (and are they really problem?)

Use flow:

The flowchart illustrates the interactions between several components: **A**, **A_info**, **S**, and **V**.

- A** and **A_info** are connected by two arrows: a solid arrow from **A** to **A_info** labeled "exists file?", and a dashed arrow from **A_info** to **A** labeled "calculate".
- A_info** has a self-looping arrow.
- A_info** and **V** are connected by a double-headed arrow.
- S** is a central node with multiple outgoing arrows to **A_info** and **V**.
- Arrows from **S** to **A_info** are associated with:
 - Q: Abilities list?
 - R: List of variables (algorithms) (goes through all found **A_info** and asks)
 - Q: Required parameters for variable X (algorithm **A**)?
 - R: List of parameters (goes through all found **A_info**, asks for variable, if so, collects parameters)
- Arrows from **S** to **V** are associated with:
 - Q: Calculate variable X (algorithm **A**)
 - R: Result (asks for required parameters, checks if all required data is presnet, sends data to **A_info**, **A_info** checks for required data, runs calculation)
 - Q: Calculate uncertainty of variable X (algorithm **A**)
 - R: Result (asks for req. params., checks if req. data and unc. present, variates inputs, run MC calculation)