

Figure 1: Constraint analysis as a flowchart. The number of degrees of freedom is abbreviated with  $\#\mathrm{DoF}$ . The physical requirement that the constraints are conserved in time is crucial for the resulting conditions on the parameters a. The case that no primary constraints appear is trivial. Note that one can obtain a non-physical theory even though  $\mathcal L$  is the most general Lagrangian. Refer to diploma thesis for further explanation, especially for the option "depends on a".