The Index of DAEs, Science or Religion Volker Mehrmann (TU Berlin)

We discuss the different Index concepts for differential-algebraic systems. Being developed in many different scientific communities and with modifications over the years, it is a constant struggle for people entering the field of DAEs to figure out the subtle differences and similarities. We will put the different concepts in a common perspective and indicate that an index concept that allows to speak a common language between the different groups such as theory people and practioners, software developers and users, etc would be a real success story for the further development of the field.