Contribution ID: **22** Type: **not specified**

# Inequalities and computer algebra

*Friday, 11 March 2022 11:00 (1 hour)*

It is very common nowadays to use tools from symbolic computation for applications in many different areas of mathematics (or physics, or computer science, etc.). One backbone of symbolic computation is Cylindrical Algebraic Decomposition (CAD). In the past years, we have applied CAD to problems arising in applied mathematics. Among the prominent methods in computer algebra are algorithms to prove and derive identities of expressions satisfying difference or differential equations of certain type. Thanks to work of Gerhold and Kauers, CAD can be used to (semi-)automatically prove inequalities including this type of input. In this talk, I give an overview on some of these results.

**Presenter:** PILLWEIN, Veronika (RISC Linz)

**Session Classification:** Hauptvorträge