

Sequences and series beyond holonomic

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Holonomic objects, whether infinite sequences or formal power series, can be represented with finite data, are closed under several operations, and form a class for which many algorithms have been developed and implemented. These expressions appear in many applications in Mathematics, Computer Science or Natural Sciences, but there is also a world outside of holonomic.

In this talk, we first recall some of the classical algorithms before moving on to the non-holonomic universe. We present some subsets, that can be represented with finite data, are closed under certain operations and/or form a class for which algorithms have been recently developed and implemented.