

Undergraduate that Published

Symbolic computation applied to operator theory

Jéssica Pires¹,

¹ Universidade do Algarve

In our work we use *Mathematica*'s symbolic computation capabilities to implement analytical operator theory algorithms. The design of our algorithms is focused on the possibility of implementing on a computer all the extensive symbolic and numeric calculations.

The main goal of this talk is to present some of our new operator theory algorithms related to some special classes of singular integrals, defined in the unit circle. Several nontrivial examples computed with the algorithms are presented.

The corresponding source code of those algorithms are available as a supplement to the online edition of the article [1].

This is a joint work with Ana C. Conceição.

References

- [1] CONCEIÇÃO, ANA; PIRES, JÉSSICA, *Symbolic Computation Applied to Cauchy Type Singular Integrals*, Math. Comput. Appl., 27(1), 3 (2022).