New bounds for the cp-rank in copositive optimization

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In copositive optimization, it is essential to determine the minimal number of nonnegative vectors whose dyadic products form, summed up, a given completely positive matrix (indeed, one of these vectors necessarily must be a solution to the original problem). This matrix parameter is called cp-rank. Since long, it has been an open problem to determine the maximal possible cp-rank for any fixed order. Now we can refute a twenty years old conjecture and show that the known upper bounds are asymptotically equal to the lower ones.

## References

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