Published Papers (2023-2026) Improved and Extended Using Ram Calculus by Reformulating and Re-solving the Problems Addressed in the Papers

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Overview

This is a catalog of papers published around 2023-2026 and their corresponding technical reports. Each technical report listed after a paper is based on that paper, but reformulates and re-solves the problems addressed in it using the novel Ram Calculus theory, algorithms, tools, and techniques, all invented by the author of this catalog. The resulting solutions often constitute substantial improvements over those in the paper in terms of accuracy, computational speed, transparency of the functions and parameters in the problems, generality, extensibility, adaptability, and theoretical elegance. These technical reports are sold at www.IntegralResearch.net, where more details about Ram Calculus can be found. The papers themselves are not sold; full bibliographic information is included so readers can access them from external sources. The technical reports cover papers in all areas of science, mathematics, and engineering, as well as quantitative finance. More papers and corresponding technical reports will be added to this catalog in the coming months. These reports are useful to researchers in industry and academia and to graduate students in science, mathematics, engineering, and finance. The Ram Calculus theory and algorithms themselves have been thoroughly verified by the author but not the technical reports listed here. The technical reports were generated with the help of AI models and numerous additional technical reports on Ram Calculus (all of them are listed on www.IntegralResearch.Net). In the opinion of the author, these technical reports are not perfect but extremely useful. The technical reports listed here have not yet been reviewed by humans for correctness, but another version of the technical reports that are reviewed and revised by humans are expected to be listed here sometime later (at a higher price). **If you find a substantive error in the core idea described in any item that you buy here, or if you find an alternative approach that is better than the one provided by the Ram Calculus technique in a significant way to solve a relevant problem (without training data that AI systems need), then you can get a full refund plus a small reward. The correctness of the mathematics and algorithms described in the items below are easily verified using advanced AI chatbots, often both symbolically and numerically. If you skip using the methods described in the items below to solve a problem that can be solved by them but use an alternative approach in the current literature, your results will be improved later by someone who will use the methods described in the items offered here for sale. All technical reports listed here are likely to be submitted as US provisional patent applications before shipping them to purchasers.**

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1 6G Integrated Sensing and Communication (ISAC)

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2 Neural Operators and Scientific Machine Learning

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9 Weather, Climate, Data Assimilation, and Turbulence

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9.1 Atmospheric and Ocean Data Assimilation and Downscaling

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16 Single-Photon and Computational Imaging

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17 Other Areas

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17.1 Helioseismology and Solar-Wave Inverse Problems

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