



anabrid Showcase: Analog Computing Revolution at Hannover Fair 2025

Lars Heimann
CEO

What is analog computing? THAT is your entry point



100% true parallelism



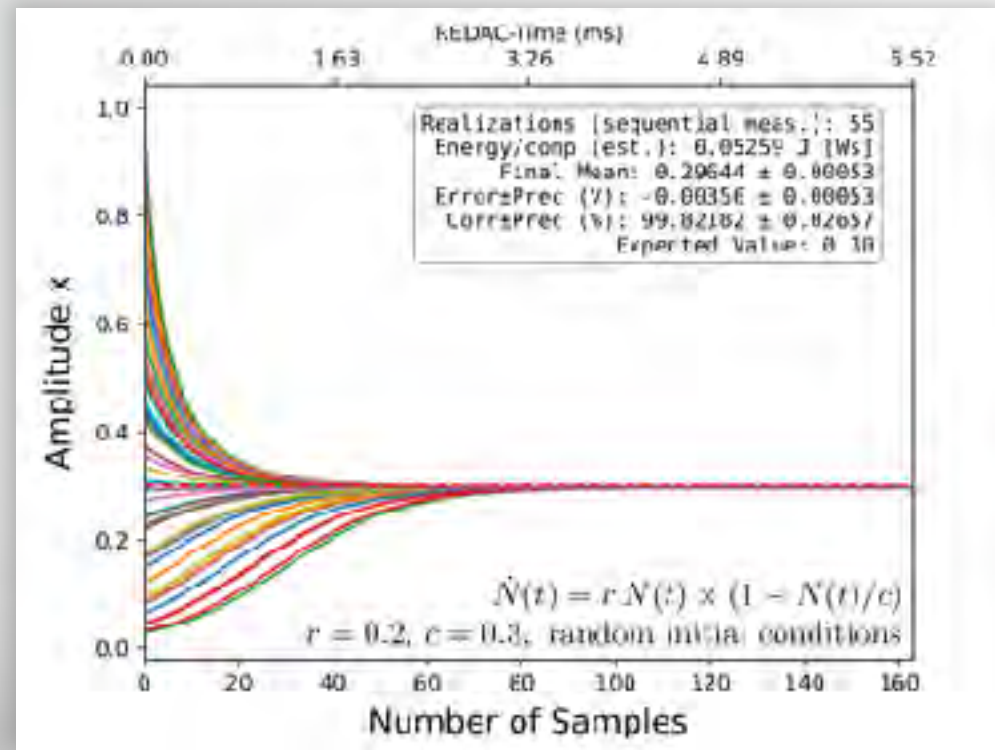
Seamless entry to analog computing



Exceptional Energy Efficiency



analog/hybrid computing today: The REDAC



The unmatched analog precision of REDAC

analog/hybrid computation



Problem



Mathematical
Description



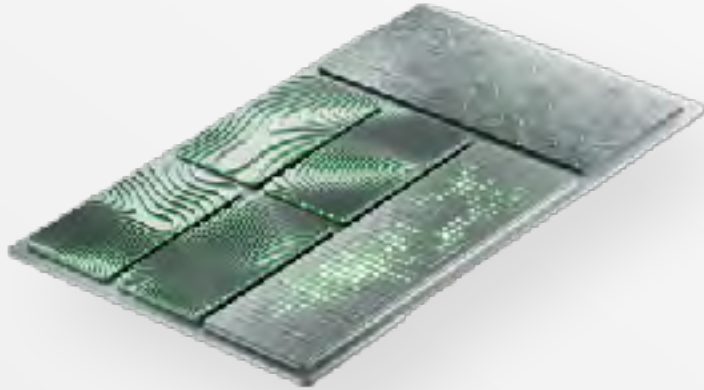
Analog Simulation



Evaluation on a
digital computer



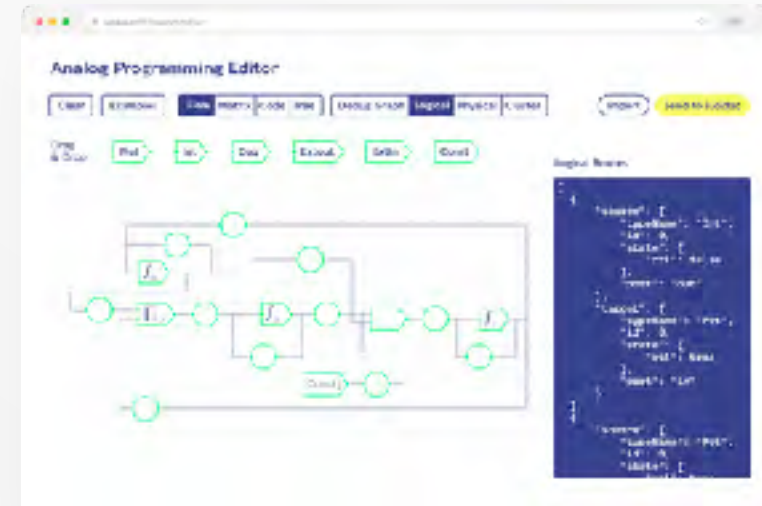
Unified Hardware-Software Stack Control



Hardware

anabrid analog chip processes computations natively in the analog domain

Patented CMOS multiplier combines the benefits of low power consumption, high speed, and integration efficiency



Software

Software maps the function to its native analog form

Digital-to-analog compilers transform high-level equations into analog configurations

REDAC Team and QCI



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QCI DLR
Quantencomputing
Initiative

The innovation team



See REDAC in action!

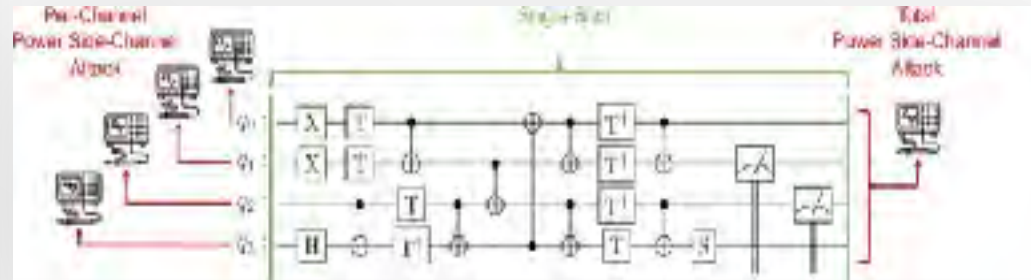


REDAC a new approach to analog computing

– cooperations with REDAC



1. real time satellite control
Dr. Spörl, (DLR)



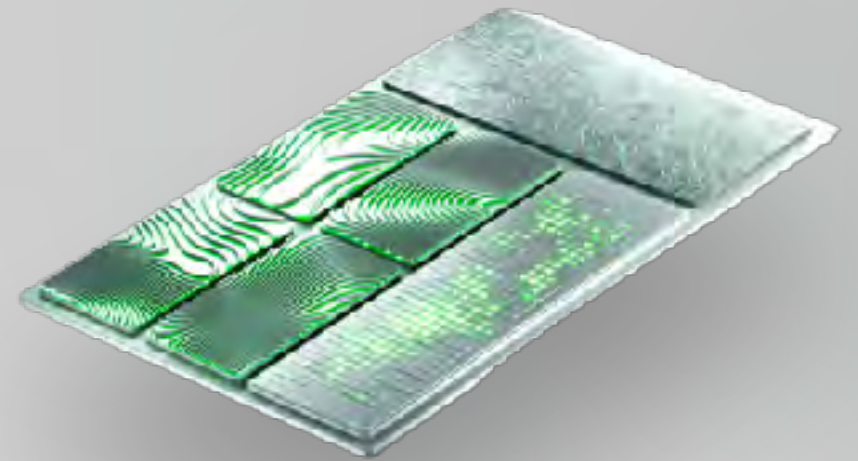
2. gate-based quantum circuits
M. Zimmermann (QCI, AQuRa)



3. robotics
Prof. Dr. Christian Friedrich
(H-KA Robotik/ anabrid)



Next Step: The REDAC on chip



European Independence



All components can be manufactured
in Europe



Aligns with EU's semiconductor
sovereignty goals



Takes advantage of Germany's
growing semiconductor ecosystem



Reduces geopolitical risks for
customers



Positions them to benefit from EU
Chips Act funding and support



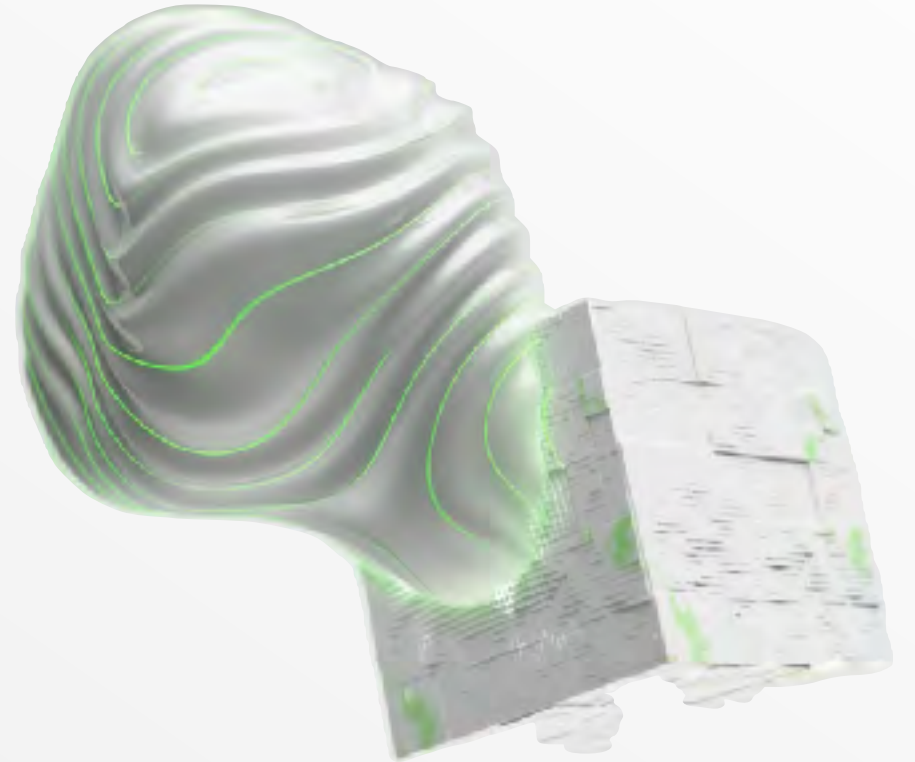
The future is hybrid



Future Research: Focus on integrating quantum algorithms into analog-hybrid platforms



Goal: New era of energy-efficient and high-performance scientific simulations



Meet us at the Booth



Dr. Sven Köppel
Chief Technical Officer, a highly accomplished quantum physicist with a proven track record in complex computer simulations and strategic scientific leadership.



Prof. Dr. Bernd Ulmann
Analog Evangelist, Professor for business mathematics and expert on analog computing.



Dr. Lucas Wetzel
Chief Scientific Officer, physicist and project manager of the REDAC Project



Dipl.-Ing. Lars Heimann
Chief Executive Officer, is an experienced business manager and expert on quantitative finance.

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Your Home for Hybrid Computing

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