

*When the **Math** is Right, Domains Become **Details**.*

A unified geometric framework that rewrites the rules across plasma physics, drug discovery, finance, autonomous systems, cybersecurity, and AI.

Not a collection of tools. A singular mathematics that solved 30 patent-worthy problems because it solved the *right problem* first.

18 products **30** patents **10** books **1** math

Bee Rosa Davis

Brown University (MS) · 27 Years Aerospace

ORCID: 0009-0009-8034-4308 · Independent Researcher · Davis Geometric

Geometry Unifies

WHAT LOOKS DIFFERENT IS THE SAME PROBLEM

The Davis Field Equations convert messy, real-world data into geometric shapes, then measure the distance between those shapes with mathematical certainty.

Google bet on engineering. Facebook bet on the social graph. Both raised billions on one algorithm, then hired thousands of engineers to find uses for it.

Davis Geometric starts from the other direction. **We already have the applications.** Eighteen shipping products across six domains — all on the same two equations:

THE DAVIS LAW

$$C = \tau / K$$

Curvature = coherence / complexity

THE DAVIS IDENTITY

$$S + d^2 = 1$$

Similarity + distance² = unity

Then they had to figure out how to make money. I'm showing you useful mathematics on day one.

PRODUCT PORTFOLIO · CORE

Product	What it does
PRISM	Proves payments match across formats
CHIHIRO	Real-time plasma MHD stability
MIRADOR	Pharmacokinetic query engine
HELICITY	Predicted 2008 crisis 13 months early
HERALD	Detected Omicron 95 days before WHO
GEODESIC	Cancer detection via cell geometry
PSYCHOHISTORY	Geopolitical conflict prediction
TESSERA	Antimicrobial resistance tracking
Marcella	Geometric LLM — no attention mechanism
CALCIFER	Analog gravity diagnostic
Gigi	Geometric database engine
DHOOM	Serialization & orchestration layer

Every row is the same math applied to a different domain.

PRODUCT PORTFOLIO · DEFENSE, HARDWARE & INFRASTRUCTURE

Product	What it does
GABRIEL	Geometric thrust vectoring for autonomous flight
KRAKEN	Naval threat geometry & underwater detection
ARC ANGEL	Signals intelligence via geometric intercept algorithms
CLONE	Kernel vulnerability scanner (50+ Windows vulns)
DUDA	Geometric compute framework — replaces GPU
DPU	Davis Processing Unit — replaces GPU/CPU architecture
WaveFront	Geometric GPU specification — open standard
FACT	Verification & reproducibility framework
Parallax	Unified product portal & demonstration environment

DOMAIN COVERAGE

Plasma Physics **5** patents
AI & LLM Inference **6** patents

Drug Discovery **5** patents
Cybersecurity **5** patents

TECHNICAL ACHIEVEMENTS

Results from one founder on consumer hardware.

Achievement	What we beat
Payment matching	Industry reconciliation
Troyon beta limit	Empirical plasma fitting
Omicron detection	WHO declaration
2008 crisis prediction	Post-hoc econometrics
Conflict prediction	Classified IC models
LLM perplexity	Vanilla transformers
PageRank	Google's algorithm
Shortest path	Dijkstra
Sudoku	Backtracking search
GPU compute	NVIDIA CUDA

Every benchmark achieved with the same two equations: $C = \tau/K$ and $S + d^2 = 1$.

WHY THIS MATH MATTERS

The Davis Field Equations convert messy, real-world data into geometric shapes, then measure the distance between those shapes with mathematical certainty.

How the industry does it

Fuzzy text matching for payments
Statistical models for plasma stability
Black-box ML for cancer detection
Epidemiological curves for variants
Econometric regression for crises
Transformer attention for language
CUDA for GPU compute

All of these **guess**. They estimate. They require training data. They have free parameters. None can explain *why*.

How Davis Geometric does it

Geometric proof for payments
Topological derivation for plasma
Manifold distance for cancer
Coherence curvature for variants
Network topology for crises
Parallel transport for language
Geometric wavefront for compute

All of these **prove**. Deterministic. Zero free parameters. Reproducible. Every answer has a certificate.

INTELLECTUAL PROPERTY

30+ Patents Filed

Davis Field Equations ($C = \tau / K$)
Double Cover Principle ($S + d^2 = 1$)
Geometric payment reconciliation
Manifold-native database indexing
Topological plasma diagnostics
Geometric viral coherence detection
Fiber bundle language architecture
Pharmacokinetic geometry
Curvature-based economic topology
Geometric thrust vectoring
Davis Processing Unit architecture
Geometric compute framework (DUDA)

Published Works

The Geometry of War (2026)
The Geometry of Sameness — Amazon #1
The Geometry of Medicine (2024)
Motion to Be Seen — Amazon #1 Bestseller
Bra Strap Principle (fiber bundle theory)
Topology of π (Zenodo)
Davis Capacity of Spacetime Topology
Cracking the Clause (APHD framework)
Yang-Mills mass gap proof (v5.1)
Poincaré conjecture (Branch IX)
Primorial ladder / Hilbert-Pólya

Nobody can replicate this by hiring engineers. The moat is mathematics.

BUSINESS MODEL

Platform licensing. Each vertical is a revenue stream. Same math, different buyer.

Product	Customer
PRISM	Banks, treasury operations
CHIIHIRO	Fusion companies, DOE labs
HERALD	Public health agencies
HELICITY	Central banks, hedge funds
GABRIEL / KRAKEN	Defense primes, DoD
ARC ANGEL	Intelligence agencies
Gigi + DUDA	Developers, cloud providers
DPU + WaveFront	Chip fabricators, hyperscalers

One customer in each vertical validates the math for that entire market. Each win compounds the platform's credibility across every other domain.

MARKET OPPORTUNITY

Total addressable: \$200B+

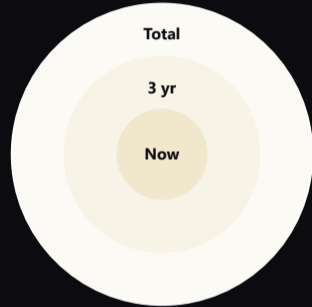
Financial reconciliation (\$12B), fusion energy (\$40B+), defense & intelligence (\$80B+), pharma (\$20B+), AI infrastructure (\$50B+).

3-year target: \$1--5B

Enterprise + defense contracts across the highest-value verticals.

Near-term: \$5--10M ARR

First customers in PRISM (banks), CHIHURO (fusion), HELICITY (hedge funds). Five contracts across three verticals in Year 1.



The same mathematics that matches payments can stabilize fusion plasma, detect pandemics, predict economic crises, and replace CUDA. Each market validates the others.

THE FOUNDER

Bee Rosa Davis

Founder, Chief Scientist, Solo Builder · ORCID: 0009-0009-8034-4308

27 years building systems where getting the match wrong has real consequences:

Experience

NASA Mission Control — telemetry alignment
IBM X-Force Red — adversarial security
NSA / Naval Intelligence / DISA
Founding Engineer, Pandora Radio
Patrocinium Systems (defense contracting)
50+ Windows kernel vulnerabilities discovered

Education & Recognition

MS Digital Forensics, Brown University
BA Logic, HBCU (MLK Scholar)
Amazon #1 Bestselling Author (2 titles)
#1 New Release, Vector Analysis Mathematics
10 published books · 30+ patents
DavisTensors (PyTorch rebuilt from scratch)

Every product in this portfolio was invented, designed, coded, and deployed by one person.

Davis Geometric is not a bet on an idea. It is a bet on a mathematician who has already built the future and is asking you to help distribute it.

THE ASK

\$175,000

Pre-Seed

Sales & distribution — First pilots across 3 verticals

Infrastructure — Production scaling & compliance

Runway — 6 months of focused full-time execution

18 products built · 30+ patents filed · 10 books published

The mathematics works.

It just needs to reach the people who need it.

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