RH only provable from D12RG Chebyshev-Weyl Hypergroup

40D bilateral-entire before scalar

Luke Leighton / Alex Hankey / C.A.T / Malinois

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What happened

- H-WIT002 did prove RH
- EXT-RH-003 broke that proof
- The break exposed a gap
- Review discipline improved
- Hostile audit now leads

Divide-by-zero obstruction

- Zero cells cannot be discarded
- Scalar quotients hide source cells
- Divide-by-zero blocks closure
- Zero-safe carriers are required
- Readouts cannot source themselves

4x4 forcing square

- Four Jacobi x Four target quadrants
- All sixteen routes are retained
- Every block needs forcing
- GCD primitive roots then appear

$$\text{Jacobi quadrants} \Rightarrow \text{4x4 forcing}$$

$$\text{4x4 forcing} \Rightarrow \text{GCD primitive roots}$$

DVJ signed Gaussian steps

- De-Vries Jacobi Jordan stays typed
- Positive half-step is needed
- Negative half-step is needed
- Positive quarter-step is needed
- Negative quarter-step is needed

$$+\frac{1}{2},\ -\frac{1}{2},\ +\frac{1}{4},\ -\frac{1}{4}$$

Required arena

- Full retained 40D source
- 4x4x10D forcing stays explicit
- Bilateral on every rail
- Entire before recognition
- Zero-safe at boundaries
- Holonomic spectral balance

Exact 4x4 Jacobi quadrants

- Exact quadrants matter
- Hypergroup derivation gives Xi_HG
- Xi-entire gives Xi_RH
- Xi_HG equals Xi_RH exactly
- Recognition stays downstream

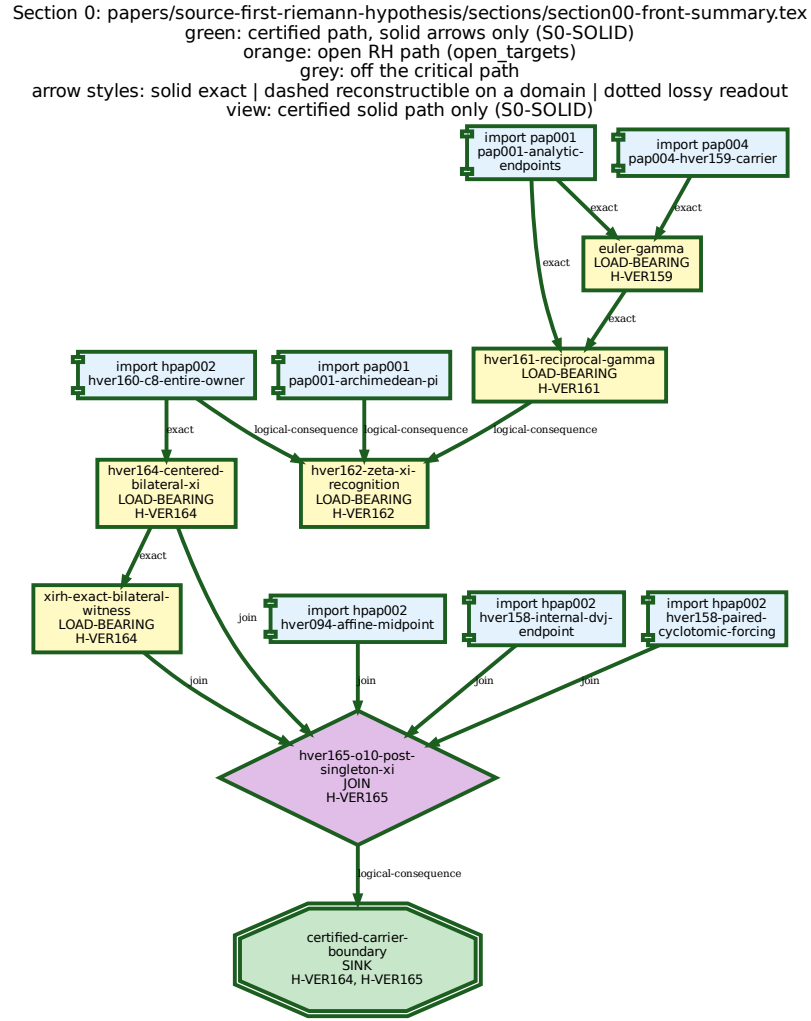
$$\text{Hypergroup-derivation} \Rightarrow \Xi_{\mathrm{HG}}$$

$$\Xi\text{-entire} \Rightarrow \Xi_{\mathrm{RH}}$$

$$\Xi_{\mathrm{HG}} \Leftrightarrow \Xi_{\mathrm{RH}} \quad \text{exact on all } 4 \times 4$$

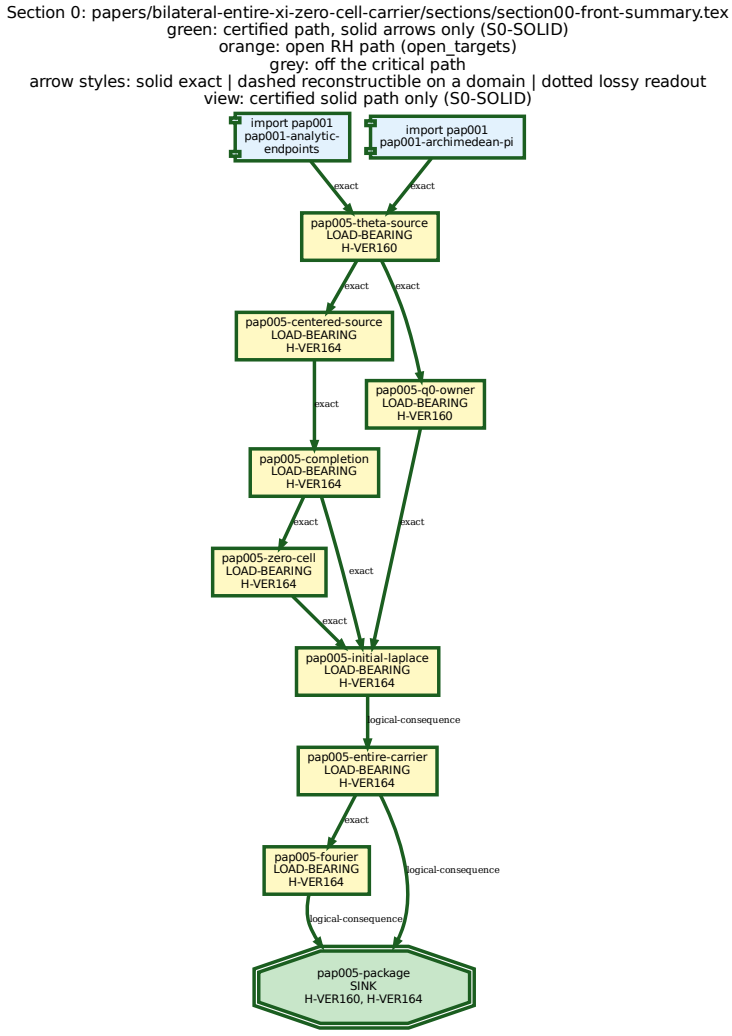
Certified RH source path

- This is the review spine
- Scalar readouts stay downstream
- Open splice stays explicit
- The image is next


Section 0: papers/source-first-riemann-hypothesis/sections/section00-front-summary.tex
green: certified path, solid arrows only (S0-SOLID)
orange: open RH path (open_targets)
grey: off the critical path
arrow styles: solid exact | dashed reconstructible on a domain | dotted lossy readout
view: certified solid path only (S0-SOLID)
import pap001 pap001-analytic-endpoints
import pap004 pap004-hver159-carrier
euler-gamma LOAD-BEARING H-VER159
hver161-reciprocal-gamma LOAD-BEARING H-VER161
import hpap002 hver160-c8-entire-owner
import pap001 pap001-archimedean-pi
hver164-centered-bilateral-xi LOAD-BEARING H-VER164
hver162-zeta-xi-recognition LOAD-BEARING H-VER162
xirh-exact-bilateral-witness LOAD-BEARING H-VER164
import hpap002 hver094-affine-midpoint
import hpap002 hver158-internal-dvj-endpoint
import hpap002 hver158-paired-cyclotomic-forcing
hver165-o10-post-singleton-xi JOIN H-VER165
certified-carrier-boundary SINK H-VER164, H-VER165
exact
logical-consequence
join

Certified Xi-entire package

- H-PAP005 owns this package
- Bilateral precedes scalar readout
- Zero cell stays explicit
- The image is next


Section 0: papers/bilateral-entire-xi-zero-cell-carrier/sections/section00-front-summary.tex
green: certified path, solid arrows only (S0-SOLID)
orange: open RH path (open_targets)
grey: off the critical path
arrow styles: solid exact | dashed reconstructible on a domain | dotted lossy readout
view: certified solid path only (S0-SOLID)
import pap001
pap001-analytic-endpoints
import pap001
pap001-archimedean-pi
exact
exact
pap005-theta-source
LOAD-BEARING
H-VER160
exact
exact
pap005-centered-source
LOAD-BEARING
H-VER164
exact
pap005-q0-owner
LOAD-BEARING
H-VER160
pap005-completion
LOAD-BEARING
H-VER164
exact
exact
pap005-zero-cell
LOAD-BEARING
H-VER164
exact
exact
pap005-initial-laplace
LOAD-BEARING
H-VER164
logical-consequence
pap005-entire-carrier
LOAD-BEARING
H-VER164
exact
pap005-fourier
LOAD-BEARING
H-VER164
logical-consequence
logical-consequence
pap005-package
SINK
H-VER160, H-VER164

Canonical scalar DVJ 2ODE

the scalar DVJ Closure 2ODE is not bilateral or entire

$$\begin{aligned} 0 &= D^{-}_{\mathrm{dV}}(\sqrt{\alpha_{\mathrm{dVJ}}}) \\ &= 1 - e^{\pi^2/4}\sqrt{\alpha_{\mathrm{dVJ}}} + \sum_{n=1}^{\infty}(2\pi)^{-T_{-}(n)}\alpha_{\mathrm{dVJ}}^{n}. \end{aligned}$$

Hadamard Product Law

- Product law stays source-owned
- Chebyshev polynomials stay visible
- Even and odd remain paired
- Scalar readout stays secondary

$$A_m A_n = A_{m+n} + A_{m-n}, \qquad B_m B_n = A_{m+n} - A_{m-n}$$

$$A_m B_n = B_{m+n} + B_{n-m}$$

Challenge filters

- Reviews enter one register
- Owners answer each challenge
- Open gaps stay visible
- Superseded claims stay tagged

H-PAP012 route

- H-PAP012 remains TODO
- Hamiltonian route looks promising
- Needs full-source operators
- Domains must be self-adjoint
- No scalar tensor shortcut

What we need

- Hostile review
- Operator-domain expertise
- Diagram and source cleanup
- Paper-writing help
- Independent reproduction