

Sealed Experiment Record

Sealed 2026-10-12 · Signed by the K-Veritas server
Session ebc3f6ee · Data hash dae9...2231

Abstract

This record seals 1 run (echo 'KVERITAS_METRIC name=phi value=0.449859 step=0'; echo 'KVERITAS_METRIC name=phi_bam value=0.459196 step=0'; echo 'KVERITAS_METRIC name=phi_bmq value=0.737672 step=0'; echo 'KVERITAS_METRIC name=phi_boz value=0.383668 step=0'; echo 'KVERITAS_METRIC name=phi_dtm value=0.629466 step=0'; echo 'KVERITAS_METRIC name=phi_ful value=0.369023 step=0'; echo 'KVERITAS_METRIC name=phi_mey value=0.241557 step=0'; echo 'KVERITAS_METRIC name=phi_mku value=0.213298 step=0'; echo 'KVERITAS_METRIC name=phi_kao value=0.811908 step=0'; echo 'KVERITAS_METRIC name=phi_myk value=0.320214 step=0'; echo 'KVERITAS_METRIC name=phi_ses value=0.242411 step=0'; echo 'KVERITAS_METRIC name=phi_spp value=0.395844 step=0'; echo 'KVERITAS_METRIC name=phi_snk value=0.385623 step=0'; echo 'KVERITAS_METRIC name=phi_taq value=0.658282 step=0') executed on Intel(R) Xeon(R) CPU @ 2.20GHz between 2026-10-12 16:45 and 16:45 UTC. Reported results: phi 0.449859, phi_bam 0.459196, phi_bmq 0.737672, phi_boz 0.383668. 1 invocation in total, 0 failed. Produced with K-Veritas [1].

What this record proves

These numbers came from the sealed code at this time, unchanged since. Whether the experiment is sound is for the reader to judge.

Verify: kveritas verify <this file> or kveritas.org/verify

1 Setup

Item	Value
Session	ebc3f6ee-7f2e-4491-8025-d857a9df74bc
Initialized	2026-10-12T16:11:25Z
Machine	debd2e227b0a68ef
Operating system	linux / amd64
CPU	Intel(R) Xeon(R) CPU @ 2.20GHz, 8 cores
Memory	31.3 GB
GPU	NVIDIA L4, 23034 MiB
Environment, run 1	83fee8e8e2fa635d1d6d7af919d4309658cd91d218119f339503f588cad729dc
Disclosure	open
Source code, run 1	82e780d4df83bbbc38eed03ed06aecf4706d4798b078497104eef9aa9a8de47b

2 Runs

#	Command	Duration	Exit	Anchored
1	sh -c echo 'KVERITAS_METRIC name=phi value=...	0.5 seconds	0	at run end

1 invocation in total: 1 kept in this record, 0 failed, 0 interrupted. Every invocation is recorded by the server, including the ones not kept.

3 Results

Run 1: echo 'KVERITAS_METRIC name=phi value=0.449859 step=0'; echo 'KVERITAS_METRIC name=phi_bam value=0.459

Metric	Final value	Step	Source
phi	0.449859	0	explicit
phi_bam	0.459196	0	explicit
phi_bmq	0.737672	0	explicit
phi_boz	0.383668	0	explicit
phi_dtm	0.629466	0	explicit
phi_ful	0.369023	0	explicit
phi_mey	0.241557	0	explicit
phi_mku	0.213298	0	explicit
phi_kao	0.811908	0	explicit
phi_myk	0.320214	0	explicit
phi_ses	0.242411	0	explicit
phi_spp	0.395844	0	explicit
phi_snk	0.385623	0	explicit
phi_taq	0.658282	0	explicit

4 Execution evidence

Coherence

Not enough telemetry to judge. This says nothing against the run; the seal and anchors still hold.

Telemetry

Run	Samples	CPU time	Peak memory	Peak GPU
1	4	0.0 s	0.00 GB	0%

5 Provenance

Run 1: echo 'KVERITAS_METRIC name=phi value=0.449859 step=0'; echo 'KVERITAS_METRIC name=phi_bam value=0.459

Disclosure open. 32 tracked files, 2 snapshots. Every snapshot is bound into the signature.

#	Snapshot	Time	Root	Changed
0	run_start	16:45:43	0127f9e78c2f42a2	32
1	run_end	16:45:43	0127f9e78c2f42a2	0

Activity: 32 files read, 0 files written, 0 subprocesses. Full list in Appendix B.

6 Verification

Field	Value
Signer	Signed by the K-Veritas server
Signed at	2026-10-12T16:45:48.151776+00:00
Algorithm	RSA-PSS-SHA256, 4096-bit key
Key fingerprint	eeac81653cf44ac029c4069cf2a06d9f
Data hash	dae92f7046d21d8eba122bfefbc2cac0b0c6f54d39ce5135f1d9835fe1e2f2231
Code bundle hash	320a8c9cb3f873b9870dcb9dd0115f9a6df93fe4fbcbb41646a0d0a565583090

Run anchors: 1 invocations were anchored at the server when they ended.

Checks a verifier runs

1. The stored canonical data hashes to the data hash above, and the signature verifies over data_hash:nonce:signed_at.
2. The signing key is the K-Veritas server key, not one supplied by the author.
3. Nothing was appended after the seal, and these pages hash to the value bound in the seal.
4. Each run matches the digest the server received when it ended.
5. A supplied code bundle hashes to the code bundle hash above.

References

[1] M. K. Keita and C. Homan. Computer Science Conferences Should Require Nonrepudiable Experimental Results. NeurIPS 2026 Position Paper Track. arXiv:2605.08586.

Appendix

A Full metric series

Run 1: echo 'KVERITAS_METRIC name=phi value=0.449859 step=0'; echo 'KVERITAS_METRIC name=phi_bam value=0.459

Metric	Value	Step	Line	Source
phi	0.449859	0	1	explicit
phi_bam	0.459196	0	2	explicit
phi_bmq	0.737672	0	3	explicit
phi_boz	0.383668	0	4	explicit
phi_dtm	0.629466	0	5	explicit
phi_ful	0.369023	0	6	explicit
phi_mey	0.241557	0	7	explicit
phi_mku	0.213298	0	8	explicit
phi_kao	0.811908	0	9	explicit
phi_myk	0.320214	0	10	explicit
phi_ses	0.242411	0	11	explicit
phi_spp	0.395844	0	12	explicit
phi_snk	0.385623	0	13	explicit
phi_taq	0.658282	0	14	explicit

B Provenance timeline and activity map

Run 1: echo 'KVERITAS_METRIC name=phi value=0.449859 step=0'; echo 'KVERITAS_METRIC name=phi_bam value=0.459

#	Snapshot	Time	Root	Changed
0	run_start	16:45:43	0127f9e78c2f42a2	32
1	run_end	16:45:43	0127f9e78c2f42a2	0

Event	Path or command	Hash
read	adapter_config.json	
read	config.yaml	
read	data/resources/bam/hashees.json	
read	data/resources/bmq/hashees.json	
read	data/resources/boz/hashees.json	
read	data/resources/dtm/hashees.json	
read	data/resources/frozen.json	
read	data/resources/ful/hashees.json	
read	data/resources/kao/hashees.json	
read	data/resources/mey/hashees.json	
read	data/resources/mku/hashees.json	
read	data/resources/myk/hashees.json	
read	data/resources/ses/hashees.json	
read	data/resources/snk/hashees.json	
read	data/resources/spp/hashees.json	
read	data/resources/taq/hashees.json	
read	exp/eval.json	
read	exp/manifest.json	
read	kveritas_report.pdf.provkey.json	
read	models/adapter_config.json	

Event	Path or command	Hash
read	models/checkpoint-50/adapter_config.json	
read	models/checkpoint-50/ref/adapter_config.json	
read	models/checkpoint-50/tokenizer.json	
read	models/checkpoint-50/tokenizer_config.json	
read	models/checkpoint-50/trainer_state.json	
read	models/ref/adapter_config.json	
read	models/safety_snapshot.json	
read	models/tokenizer.json	
read	models/tokenizer_config.json	
read	safety_snapshot.json	
read	tokenizer.json	
read	tokenizer_config.json	

C Run history

Invocation 1, OK, 0.5 seconds, 14 output lines, started 2026-10-12T16:45:43

```
metric_hash 598e8346bdd269aa05dccf121c43c2e7ece2173f2562c5f2a29d470345ba0587
run_digest  f15bceaf5395268dd1228008fddbdc824104b505d963128c3d62274be388a221
anchored    at run end
```

D Raw seal fields and hashes

Seal

```
data_hash      dae92f7046d21d8eba122bfebc2cac0b0c6f54d39ce5135f1d9835fe1e2f2231
signed_message_hash 3de5bae8060285fb44665c448a200622587ed6f5c1454bdd1ccbd986fb1b0ef4
nonce          21c6fba278d4b046cc42670fdee2a795
signed_at      2026-10-12T16:45:48.151776+00:00
sealed_at      2026-10-12T16:45:48.19942174Z
checkout_bundle 320a8c9cb3f873b9870dcb9dd0115f9a6df93fe4fbcbb41646a0d0a565583090
```

Signature (base64)

```
wtrqzJxN8KnWAttpb4EQa9Hq8xwQoGM9RJURP+ohLh7ka6a6SiCSQoxEXXh+7s8XBHCXekMIfp3wfbKF+++tmEKYs
Cd+RNyzEkvr7QWT4r54RYz3uxlDEV5SHJDLBSuIZBxAX+NAV4mUQXZoR30cC4k5L0r2+l9M7qHLrdHpKj2WXR60A
IxVQf3c4+dA/07UYlQTZ/HsQvoVl/fX9MAWUf8H/WusyoG5MCyqbAscP8INw/lWLICeUpsAbx4de8hmr6x8fRCO
IqgLWDrXHJ/8VUMlOK22554CR/znNt7dS06vP5TgrLSuc1Vg+ab500eGB/LlZF05fPE4jFrvHOMLVNf8A6S7Npfc
A7xKZPALgGak0Hb2f9wEHLfGq1mx572kxe9mq/TmUrQTWECavBqjbFOV/Rdr2eLFYJlaHaLA2+XYASpDI53ga/8g
sOPZ7ddprA+0VvYL+nSiqTwJ9eMmgk807Z1nlfVe90MCQYDa0/ePw7oKtjG+0pM0CHifc2asaee6rXMTUpSTLjaVe
4XGqK2kGx4hfj4B8F7pSwN6UTzIHwjH75k1nb6ZGKWdh+wpB5eGLbDVQcQy2zJnebQysSqp94EykJNJS7cSRw6K
pBWUYSvBbk6AKsyLRYIUROPYWEY+h17YMOaS0zDL2US4XnIxxv4MVcxw5S/lSH/0NWFk=
```

Public key

```
-----BEGIN PUBLIC KEY-----
MIICIjANBgkqhkiG9w0BAQEFAAOCAg8AMIICCgKCAgEAlQL3YyMgeShx8IhTC7jb
sM0w2BnRXgsBn3+SMXKjtwHATqdekmlPlcjayJxD5fcPrOPPCqp/LoUFz5CUZzRi
6+8FTv70dHuIz5A4LAT4vcgwP+iWscPc3HzpmjpsKbTm0emqgp6RB6GNNPpxYa5X
7qU95EfEisX/GfoS9ToxtqPBwCcVwSPBX8efec4TC58m96Fsp4mC8KIcEadbIbHN
av0JjdTJ//CM0WZSIbdzE6qvEbNfCqDB5tNU7oHfYvBeNLrvPU9TAqdbtozdHQ+D
AhfTRuJNgWekjwD5lb0Vhi4qlkweSOEMTKT3ye9I1LxEaJn4bku4eKqes7VSZt3o
XbUcmr2H5mKcKsvt6bXmX6ajAmgi900Cm9QJlaQkJM6z2iITnyvDMgueJtFxQpC9
HNBPgPZ242NH8JgE6CNF7ToL9syas67u7UMgIcNgeNHnCy9bLgPU5annzP9gN2l
6HEMldkXNdKQRb1rDwyEJf3N/50YHnXXPmuf5sb8R/pxWNqtF04R5UGVV92qd2Mi
1GN7lE3mbQRbPsLL/JApDXMNzNikaFfBsQK7iKxr7vIaTeZckFZwfThcYNT7Hasg
+eE4bf/olCHBCf1VIDcDxohehdZ0WRRcgM9iK3I/0zZdaBsgdc8WuJRmb8LPP9v
8Jap/1PwjNcNku5cdw3gHLcCAwEAAQ==
-----END PUBLIC KEY-----
```

Run 1 outputs

```
stdout  598e8346bdd269aa05dccf121c43c2e7ece2173f2562c5f2a29d470345ba0587
stderr  e3b0c44298fc1c149afb4c8996fb92427ae41e4649b934ca495991b7852b855
metrics 598e8346bdd269aa05dccf121c43c2e7ece2173f2562c5f2a29d470345ba0587
digest  f15bceaf5395268dd1228008fddbdc824104b505d963128c3d62274be388a221
```

E BibTeX for [1]

```
@misc{keita2026computerscienceconferencesrequire,
  title={Computer Science Conferences Should Require Nonrepudiable Experimental Results},
  author={Mamadou K. Keita and Christopher Homan},
  year={2026},
  eprint={2605.08586},
  archivePrefix={arXiv},
  primaryClass={cs.CR},
  url={https://arxiv.org/abs/2605.08586},
}
```