Quantum Information Research Supports Consciousness as Information

Oral Paper Session

Doug Matzke

matzke@dallas.net
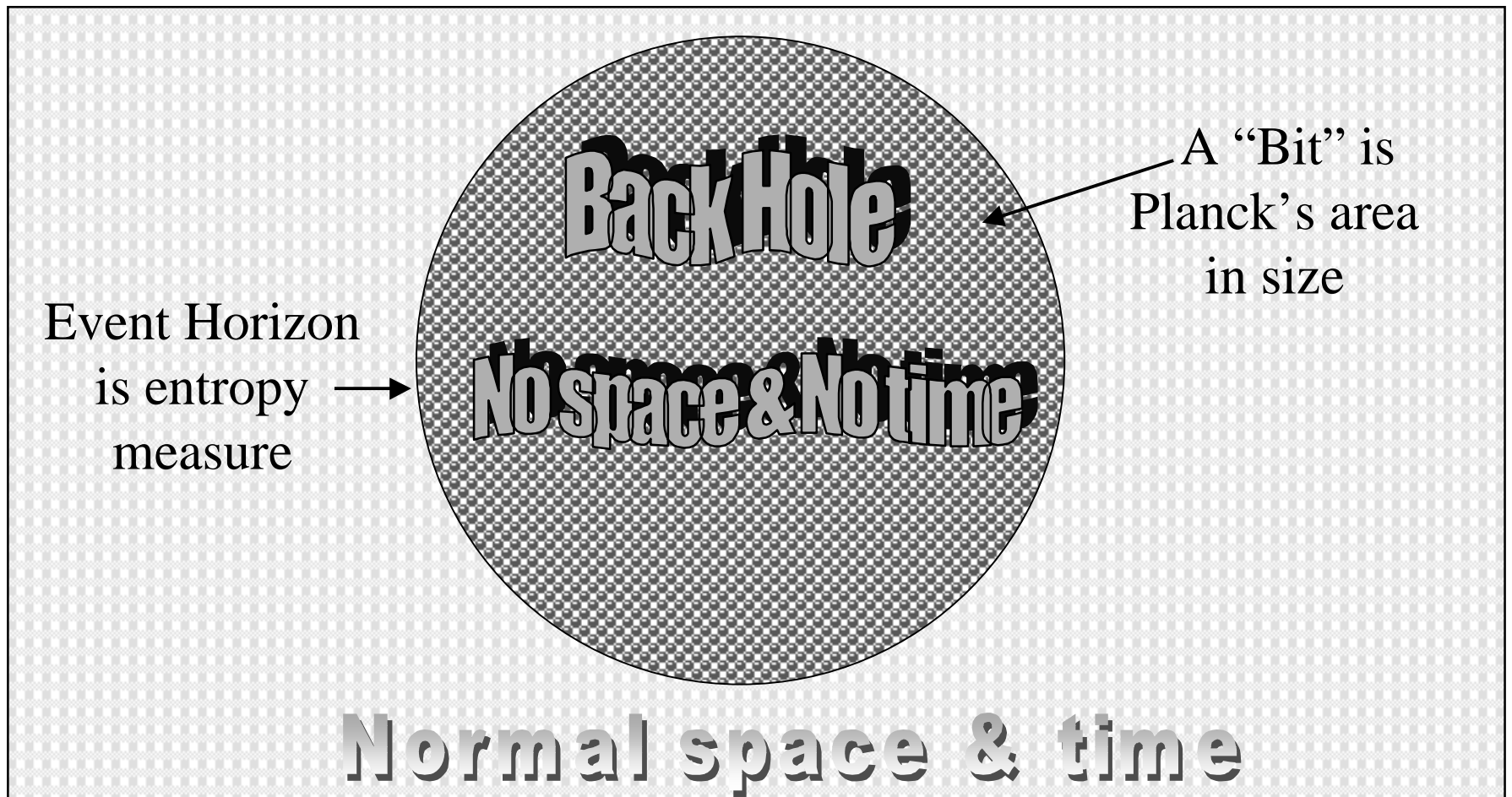
http://www.dallas.net/~matzke

Energy vs Information Duality

- **Classical Energy = Conservation:**
  - Energy is a particular consistency measure
  - Applies to Newtonian and Relativistic models
  - Only relavent within classical SpaceTime
  - Computation limits due to locality/sequential
- **Quantum Information = Constraints:**
  - Information is additional consistency measure
  - Applies to Quantum States
  - Only pertains to Quantum *non-spacetime*

It From Bit

- John Wheeler says every "IT" is really "BITs"
- Relativity & Quantum demand consistency
- Empty spacetime = quantum ether (Lorentz inv)
- David Bohm's qstates = Active Information
- Large scale quantum systems
  - Black Holes (where gravity, quantum, infor. unite)
  - Superconductivity/Superfluidity
  - Quantum computation
  - Consciouness?

Bits and Black Holes

A "Bit" is
Planck's area
in size

Back Hole

No space & No time

Event Horizon
is entropy
measure

Normal space & time

Quantum Computation

- Solves factoring algorithm in linear time

- Impossible for Classical Computers

- Due to non-spacetime properties of Qubits

- Decoherence rate impacted by noise/temp

- Information *without* energy encoding

- Hilbert Space = *concept* addressable mem

Quantum Information Means Smarter

- Gravitational time dialation => dumber

- Qubits and Ebits are smarter than cbits

- Smarter when more dimensions (>=12)

- Spacetime limits information unity

- Decisions without energy, space or time

- Acausal qstates can inject noise (REG)

Quantum Consciousness

- Biological Quantum Computation substrate

- Object semantics, abstraction, & knowing

- Observer adjusts spacetime perception:

  – Explains non-locality of phenomena

  – Non-ordinary temporal experiences

- Strong emotion as CAM quantum wells

- Consciousness <=> Unified *"field"* theory

- Subtle energy = quantum intelligence

Age of Knowing

- Quantum Knowing = Next Information Age
  - Bits are physical (not mathematical)
  - Energy vs Information duality/paradox
  - Atemporal and non-local means smarter!
- Outside the classical spacetime box
  - Remembering/communication = temporal concepts
  - Knowing and being are atemporal/acausal
- Nothing new required: *subtle energy = qinfo*