

Questions

and comments

Macrocosmos

What's Out There?

- What's the Dark Matter?
 - Is it WIMPs? Axions? Other stuff?
- What's the Dark Energy?
 - What's its (and our) future?

Who's Out There?

- Why the deafening silence?
 - Stupidity?
 - Wisdom?
- How, and in what form, will we get out there?

Can We Put More Meat on Inflation?

- Mechanism?
- Structure?

What's Up With Time?

- Boundary conditions?
- The arrow as a physical variable?

Microcosmos

Can We Improve the Foundations?

- You bet! - LHC
 - Unification
 - Supersymmetry
 - The matter that makes space
- Families: “Who ordered that?”
 - PQ symmetry, axions
 - Random modulo anthropic??

Radical Renovations?

- Strings? Extra dimensions?
- Limitations to locality?
- Quantum unification? Nonlinearity?

Can We Avoid Decadence?

- Can there be experimental greatness post-LHC?
 - Low-energy high-energy physics
 - Gifts from the sky?
 - New kinds of accelerators?
- Can there be theoretical greatness post-landscape?

Can We Homestead Hilbert Space?

- Can we bring quantum computers off the drawing board?
- Can we replace chemistry labs with calculations?
- Can we beat photosynthesis at its own game?

Mesocosmos

Can We Make Engineering More Life-Like?

- Fault tolerant, self-repairing, 3d and flexible
- “Self” (actually environmentally) powered
- Self-assembling, self-reproducing

Can We Engineer Mind?

- Is there a fundamental limitation?
 - Of course not (says FW)
 - Sensory and motor systems matter!
- Are there a few key tricks?
 - Probably
- Will the new minds quickly become the best minds?

Can We Engineer Quintelligence?

- How about looking for it?
- Could we recognize it if we saw it?

And in Conclusion ...

What Does It All Mean?

- Facts?
- Process?
- New powers?
- Inspiration