PHYSICS AND ASTRONOMY DEPARTMENT
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## Phil:

Because physics is, relative to mathematics, a confusion in which one has tried again and again in different ways, I come out with a longer list for you to choose from.

The dream of rightness: To understand nature so as to see that what happens is what ought to happen: physical explanation in terms of the Good. (Plato, Aristotle et seq.)

The dream of structural simplicity: To explain nature in terms of fundamental particles moving and combining according to necessary laws. (Democritus, Newton, Boltzmann, Rutherford, Gell-Mann)

The dream of logical necessity: To understand why nature logically could not be other than it is. (Parmenides, Aristotle, Buridan, Kant)

The watch: Nature as mechanical process. (Ptolemy, Galileo, Newton)

The stage: Nature explained in terms of properties of spacetime. (Einstein)

The continuum: Nature explained in terms of fields occupying all spacetime. (Faraday, Schrödinger)

The cosmic connection: To understand cosmology in terms of the properties of elementary particles and vice versa. (Dirac)

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