

We Should Teach First-years Quantum Field Theory

The beginning of the rehaul

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- From here on we will use the term Level I instead of undergraduate, and Level II instead of graduate.

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- clear, effective communication of ideas between student and teacher is (always) possible
- ideally, built with "ahead" and "behind" students in mind

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 - the Standard Model at the Large Hadron Collider

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What an unlucky group of imaginary students!

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- Possibility for cohort-by-cohort variation

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- Level I modeled after undergraduate
- Level II modeled after graduate
- Level III modeled after post-doctoral
- Level IV modeled after professors

Sketch of Level I Coursework

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In addition to *Introduction to Quantum Field Theory*,

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- history and philosophy of science and mathematics (HPSM)

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- Performance and reading terms

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- Graduating Level I students will have a demonstrable technical understanding of physics and mathematics since Newton
- Experienced the slow development, as well as the forced encounter with the frontier (of QFT)
- Prepared for academic (e.g. Level II), industry, or government positions

Thank you

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