

ADVANCED TOPICS IN THEORETICAL PHYSICS

AN INTRODUCTION TO SEIBERG-WITTEN THEORY

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10:30AM - 12:05PM FRIDAY FEBRUARY 2, 2018

GIVEN A QFT, IT IS OFTEN ASKED WHAT IS ITS LOW ENERGY DYNAMICS. IN NON-SUPERSYMMETRIC THEORIES, THIS QUESTION CANNOT BE ANSWERED EXACTLY AND WE SUFFICE OURSELVES WITH AN APPROXIMATE ANSWER OBTAINED FROM PERTURBATION THEORY, THAT HOLDS IN THE WEAK-COUPPLING REGIME ONLY.

SEIBERG AND WITTEN, IN THEIR SEMINAL PAPER IN 1994, PROPOSED THAT THE AFORE-MENTIONED QUESTION CAN BE ANSWERED EXACTLY FOR N=2 SUPER YANG-MILLS BY EMPLOYING THE EXTRA CONDITION OF SUPERSYMMETRY. IN THESE TALKS, I REVIEW THEIR PAPER (HEP-TH/9407087).

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