On the nonperturbative solution of quantum field theories JOHN HILLER, University of Minnesota-Duluth — Light-cone quantization and numerical methods can be used to approximate nonperturbative solutions of quantum field theories. For non-supersymmetric theories, massive Pauli–Villars particles are included in the Lagrangian to provide ultraviolet regularization. Applications to quantum electrodynamics and super Yang–Mills theory will be summarized; results of more extensive calculations for Yukawa theory will be presented in some detail.

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