Student presentation in Besançon on quantum integrable system

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Abstract: In this presentation I would like to show my previous and current work on quantum field theory. Some thermodynamics and statistic physics concepts might be found in my presentation as well. My main aim of this talk is to show one of the many ways to solve 1+1-dimensional quantum field theory, namely the method Al. Zamolodchikov implemented involving a double Wick rotation. The method itself is so fruitful that I would like to introduce a bit to my audience. Next, the scheme of solving the theory will lead to Thermodynamic Bethe Ansatz (TBA), which involves my colleague Slyvain's work on XXX Heisenberg spin chain. At last, I would like to talk about integrability and explain why it is interesting to investigate theories, which are integrable. The frame of my talk would be just as above, however the arrangement in detail requires more discussion with my supervisor.