Correlation functions in solvable lattice models: history and recent advances

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One of the problems which stand out in integrable quantum systems is the exact description of correlation functions. In this talk we give a brief survey about this topic, including its history and developments after 2001. In the last part we present a purely algebraic representation for the density matrix of the 1-dimensional Heisenberg (XXX) chain, obtained recently in a joint work with H.Boos, T.Miwa, F.Smirnov and Y.Takeyama.