1125-81-1546 **Zhenghan Wang** and **Modjtaba Shokrian Zini*** (shokrian@math.ucsb.edu). *VOAs as thermodynamical limit of Anyonic chains.* Preliminary report.

I will first define the anoynic $\mathfrak{su}(2)_k$ antiferro-magnetic chains and review the evidences showing that in the scaling limit, we obtain a Minimal model with central charge $1-\frac{6}{(k+1)(k+2)}$. Next, I will restrict to the case $k=2$ (Ising model), get into the details of the convergence of the open (and periodic) chains to the chiral (and full) Minimal model Vertex Operator Algebras(VOA) with central charge $\frac{1}{2}$, and review what is known rigorously in the mathematics literature. I will then try to give a precise meaning to the notion of scaling limit from a computational point of view. This, and other necessary concepts that will be defined, can be used to ask and hopefully give an answer to the following question rigorously: "Can Minimal models be simulated efficiently on a Quantum computer?". The answer is affirmative for the case of $k=2$. I will also try to show the difficulties of answering this question for the general level $k>2$. This is a preliminary work on the efficient simulation of CFTs on Quantum Computers. (Received September 17, 2016)