## Initial and Final Energy Value for the XXZ Model ( $\Delta = 2$ ) n = 5 $\Delta E = 4.04e - 02$ $E_{\rm LTI}(5)$ $\chi = 2$ $\chi = 3$ $\chi = 4$ $\chi = 5$ $\chi = 6$

 $\chi = 7$ 

-0.665

Ground State Energy After the Gradient Search

-0.64260 -

-0.64265

-0.64270

-0.64275

-0.64280

 $E_{\rm LTI}(4)$ 

-0.680

-0.685

-0.675

-0.670

Ground State Energy Before the Gradient Search

-0.655

-0.650

-0.660

 $E_{\rm LTI}(5)$ 

-0.645