

Figure 1 illustrates the construction of a 1D lattice model through 15 steps. The diagrams show a horizontal chain of sites (represented by small squares) with various interactions (represented by lines and labels) being added or modified. The diagrams are numbered 1 through 15, showing the progression from a simple chain to a complex model with multiple interaction types and weights.

- Diagram 1:** A simple chain of 8 sites.
- Diagram 2:** A chain of 8 sites with a single interaction between sites 1 and 2, labeled 8 .
- Diagram 3:** A chain of 8 sites with a single interaction between sites 1 and 2, labeled 8 .
- Diagram 4:** A chain of 8 sites with a single interaction between sites 1 and 2, labeled 8 .
- Diagram 5:** A chain of 8 sites with a single interaction between sites 1 and 2, labeled 8 .
- Diagram 6:** A chain of 8 sites with a single interaction between sites 1 and 2, labeled 8 .
- Diagram 7:** A chain of 8 sites with a single interaction between sites 1 and 2, labeled 8 .
- Diagram 8:** A chain of 8 sites with a single interaction between sites 1 and 2, labeled 8 .
- Diagram 9:** A chain of 8 sites with a single interaction between sites 1 and 2, labeled 8 .
- Diagram 10:** A chain of 8 sites with a single interaction between sites 1 and 2, labeled 8 .
- Diagram 11:** A chain of 8 sites with a single interaction between sites 1 and 2, labeled 8 .
- Diagram 12:** A chain of 8 sites with a single interaction between sites 1 and 2, labeled 8 .
- Diagram 13:** A chain of 8 sites with a single interaction between sites 1 and 2, labeled 8 .
- Diagram 14:** A chain of 8 sites with a single interaction between sites 1 and 2, labeled 8 .
- Diagram 15:** A chain of 8 sites with a single interaction between sites 1 and 2, labeled 8 .