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Ising Transition in Dimerized XY Quantum Spin Chain

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Abstract: We proposed a simple spin-1/2 model which provides an exactly solvable example to study the Ising criticality with central charge c=1/2. By mapping it onto the real Majorana fermions, the Ising critical behavior is explored explicitly, although its bosonized form is not the double frequency sine-Gordon model.

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Key words: quantized spin models, Ising criticality

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