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Thermally induced phase transitions increase the structural symmetry of ferroelectrics [1, 2]. An associated higher-symmetry structure is called a paraelectric structure. Recent studies have shown that ferroelectric transition-metal dichalcogenide bilayers become paraelectric [3], but not much has been said of the atomistic configuration of such a phase. In this presentation, numerical calculations that include molecular dynamics showcase this paraelectric atomistic structure [4].

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Figure 1: Infinite number of degenerate minima on a periodic energy landscape on bilayer TMDCs.