Amplitude equation in GVB-BCCC formula derivation

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August 18, 2019

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Intermediate array:

$$X699(J,L) = \sum_{I}\sum_{K} t_{I_{14},K_7} * r_{I_{14},2,14,0} * r_{K_7,3,7,0} * \langle 0^I 1^J | \hat{v} | 0^K 1^L \rangle$$

$$X700 = \sum_{J}\sum_{L} t_{J_{13},L_8} * r_{J_{13},6,13,0} * r_{L_8,7,8,0} X699(J,L)$$

$$X701(J,L) = \sum_{I}\sum_{K} t_{I_{14},K_7} * r_{I_{14},2,14,0} * r_{K_7,3,7,0} * \langle 0^I 1^J | \hat{v} | 1^L 0^K \rangle$$

$$X702 = \sum_{J}\sum_{L} t_{J_{13},L_8} * r_{J_{13},6,13,0} * r_{L_8,7,8,0} X701(J,L)$$

$$X703(J,K) = \sum_{I}\sum_{L} t_{I_{14},L_8} * r_{I_{14},2,14,0} * r_{L_8,7,8,0} * \langle 0^I 1^J | \hat{v} | 0^K 1^L \rangle$$

$$X704 = \sum_{J}\sum_{K} t_{J_{13},K_7} * r_{J_{13},6,13,0} * r_{K_7,3,7,0} X703(J,K)$$

$$X705(J,K) = \sum_{I}\sum_{L} t_{I_{14},L_8} * r_{I_{14},2,14,0} * r_{L_8,7,8,0} * \langle 0^I 1^J | \hat{v} | 1^L 0^K \rangle$$

$$X706 = \sum_{J}\sum_{K} t_{J_{13},K_7} * r_{J_{13},6,13,0} * r_{K_7,3,7,0} X705(J,K)$$

$$\langle (A_1, B_2) | \hat{H} | (T_2T_2T_2 + T_2T_2T_1T_1 + T_2T_1T_1T_1T_1 + T_1T_1T_1T_1T_1T_1) \rangle =$$

$$+0.5 * t_{A_1,B_2} * X700$$

$$+ - 0.5 * t_{A_1,B_2} * X702$$

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$$+0.5 * t_{A_1,B_2} * X700$$

$$+ - 0.5 * t_{A_1,B_2} * X704$$

$$+0.5 * t_{A_1,B_2} * X706$$

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$$+ - 0.5 * t_{A_1,B_2} * X704$$

$$+0.5 * t_{A_1} t_{B_2} * X700$$

$$+ - 0.5 * t_{A_1} t_{B_2} * X702$$

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$$+0.5 * t_{A_1} t_{B_2} * X700$$

$$+ - 0.5 * t_{A_1} t_{B_2} * X704$$

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