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Adaptive quantum coherent control of a multilevel molecular system in the time-frequency domain

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Abstract content
 (Max 300 words)

Adaptive quantum coherent control of a multi-level system in the time-frequency domain utilizing the von Neumann representation is demonstrated and compared to the results obtained with time domain only representation. A numerical model of the coherent interaction of a shaped femtosecond pulse with a multilevel quantum system was developed. This model was used with a learning algorithm to optimize the population in an arbitrarily chosen quantum level within the multi-level system.

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