Title:	On the equivalence between different averaging schemes in magnetic resonance
Authors:	Ganguly, Shreyan (/jspui/browse?type=author&value=Ganguly%2C+Shreyan) Garg, Rajat (/jspui/browse?type=author&value=Garg%2C+Rajat) Ramachandran, Ramesh (/jspui/browse?type=author&value=Ramachandran%2C+Ramesh)
Keywords:	quantum mechanical Hamiltonians magnetic resonance
Issue Date:	2020
Publisher:	American Institute of Physics Inc.
Citation:	Journal of Chemical Physics, 153(9)
Abstract:	Evolution of quantum mechanical systems under time-dependent Hamiltonians has remained a challenging problem of interest across all disciplines. Through suitable approximations, different averaging methods have emerged in the past for modeling the time-evolution under time-dependent Hamiltonians. To this end, the development of analytic methods in the form of time-averaged effective Hamiltonians has gained prominence over other methods. In particular, the advancement of spectroscopic methods for probing molecular structures has benefited enormously from such theoretical pursuits. Nonetheless, the validity of the approximations and the exactness of the proposed effective Hamiltonians have always remained a contentious issue. Here, in this report, we reexamine the equivalence between the effective Hamiltonians derived from the Magnus formula and Floquet theory through suitable examples in magnetic resonance
URI:	https://aip.scitation.org/doi/10.1063/5.0018753 (https://aip.scitation.org/doi/10.1063/5.0018753) http://hdl.handle.net/123456789/3331 (http://hdl.handle.net/123456789/3331)
Appears in Collections:	Research Articles (/jspui/handle/123456789/9)

Files in This Item:

File	Description	Size	Format	
Need to add pdf.odt (/jspui/bitstream/123456789/3331/1/Need%20to%20add%20pdf.odt)		8.63 kB	OpenDocument Text	View/Open (/jspui/bitstream/12345

Show full item record (/jspui/handle/123456789/3331?mode=full)
(/jspui/handle/123456789/3331/statistics)