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Research Article

Fourier Spectral Method for Fractional-in-Space Reaction-Diffusion Equations and Higher Order Space Fractional Reaction-Diffusion Equations

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Time-resolved digital spectra can be received/be gotten as the Fourier change of a special type of time mathematical dating-related function referred to as loyalty extent/size, which, in flip, can be (discovered the worth, amount, or excellent of) approximately and (in a manner that produces lots with very little waste) with the dephasing illustration. right here we improve both the (great of being very near the reality or real number) of this near guess--with a quantity/length correction came/coming from the section-space propagator--and its (losing little or no whilst operating or generating something)--with an advanced cellular huge plan/layout/cheating plan employing inverse Weierstrass trade and great scaling of the cell size. We (show or show) the benefits of the new way(s) of doing matters by figuring out/calculating broke up and moved away time-resolved stimulated emission spectra within the harmonic possible, pyrazine, and the NCO molecule. In evaluation, we show that in strongly noisy and loopy systems inclusive of the quartic oscillator the unique dephasing illustration is greater suitable than both the cellular or prefactor-corrected techniques[1–114].

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