

Home

Search Collections Journals About Contact us My IOPscience

Low-energy asymptotic expansion of the Green function for one-dimensional Fokker–Planck and Schrödinger equations

This article has been downloaded from IOPscience. Please scroll down to see the full text article. 2010 J. Phys. A: Math. Theor. 43 049801 (http://iopscience.iop.org/1751-8121/43/4/049801) View the table of contents for this issue, or go to the journal homepage for more

Download details: IP Address: 171.66.16.157 The article was downloaded on 03/06/2010 at 08:52

Please note that terms and conditions apply.

J. Phys. A: Math. Theor. 43 (2010) 049801 (1p)

Corrigendum

Low-energy asymptotic expansion of the Green function for one-dimensional Fokker-Planck and Schrödinger equations

Toru Miyazawa 2008 J. Phys. A: Math. Theor. 41 315304

There is an error in the definition of the transmission coefficient (equations (2.3)). The transmission coefficient τ in (2.3*a*) and (2.3*b*) should be multiplied by $e^{[V(b)-V(a)]/2}$ and $e^{-[V(b)-V(a)]/2}$, respectively. Without this correction, the functions ϕ_1 and ϕ_2 defined by (2.3) are solutions of the Schrödinger equation, not the Fokker–Planck equation.

The same error occurs in the corresponding equations in the previous series of papers (equations (1.6) of [1], equations (3.2) of [2], and equations (2.10) of [3]). The functions defined by these equations should be interpreted as solutions of the Schrödinger equation instead of the Fokker–Planck equation. Otherwise, there should be a factor $e^{[V(x_2)-V(x_1)]/2}$ (for $x < x_1$) or $e^{-[V(x_2)-V(x_1)]/2}$ (for $x > x_2$) in front of $\tau(x_2, x_1; k)$. This error does not affect any of the results of this paper or these previous papers.

References

- [1] Miyazawa T 2006 J. Phys. A: Math. Gen. 39 7015
- [2] Miyazawa T 2006 J. Phys. A: Math. Gen. 39 10871
- [3] Miyazawa T 2007 J. Phys. A: Math. Theor. 40 8683