CORRIGENDUM


To cite this article: Uwe Günther et al 2018 J. Phys. A: Math. Theor. 51 459501

View the article online for updates and enhancements.
Corrigendum

Corrigendum: Projective Hilbert space structures at exceptional points

Uwe Günther\textsuperscript{1}, Ingrid Rotter\textsuperscript{2} and Boris F Samsonov\textsuperscript{3,4}

\textsuperscript{1} Helmholtz Center Dresden-Rossendorf, D-01328 Dresden, Germany
\textsuperscript{2} Max Planck Institute for physics of complex systems, D-01187 Dresden, Germany
\textsuperscript{3} Physics Department, Tomsk State University, 634050 Tomsk, Russia

E-mail: u.guenther@hzdr.de and rotter@pks.mpg.de

Received 4 September 2018
Accepted for publication 21 September 2018
Published 16 October 2018

There was an error in the explanations of the monodromy group for encircling an exceptional point (EP) in parameter space. The correct statement concerning equation (42) should read:

These elements $W(\alpha)$ form an Abelian parabolic subgroup $P$ of the special linear group $\text{SL}(2, \mathbb{C}) \supset P$ (see, e.g. [62, 63, 66])

$$W(\alpha + \beta) = W(\alpha)W(\beta) = W(\beta)W(\alpha)$$

(42)

corresponding to the mapping $e^{i\alpha} \in S^1 \approx U(1) \mapsto P \subset \text{SL}(2, \mathbb{C})$.

Additionally, two text statements in the last paragraphs of the introduction and the conclusion sections should read accordingly:

The corresponding monodromy group is identified as parabolic Abelian subgroup of the special linear group $\text{SL}(2, \mathbb{C})$ and evidence is given that vector norm scalings are only due to complex dynamical phases whereas geometrical phases are purely real-valued and norm preserving.

With the help of the Puiseux expanded eigenvectors it has been shown that the geometric phase obtained on circles around EPs of complex symmetric Hamiltonians is purely real-valued and that the corresponding monodromy transformations are induced by an Abelian parabolic subgroup of $\text{SL}(2, \mathbb{C})$.

ORCID iDs

Uwe Günther \url{https://orcid.org/0000-0002-2272-4021}

\textsuperscript{4} Deceased 08 November 2012.