Correction to “Q-Factor Optimization of Modes in Ordered and Disordered Photonic Systems Using Non-Hermitian Perturbation Theory”

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In the manuscript Introduction, where the role of short-range correlations on the quality factors of Anderson-localized optical modes is discussed, ref 24 [Vasco, J. P.; Hughes, S. ACS Photonics 2019, 6, 2926] was used inappropriately as the authors focus instead on long-range correlations. The correct reference is Vasco, J. P.; Hughes, S. Phys. Rev. B 2017, 95, 224202, which should be considered ref 24 in the corrected version of the manuscript.

The previous ref 24, which is now referred to as ref 24*, remains of outmost relevance for the manuscript as it demonstrates the important role of long-range correlations in the Q-factor of disorder-induced optical modes in slow light photonic-crystal waveguides, with inter-hole correlations leading to more than 2 orders of magnitude enhancement in the average Q compared to uncorrelated size disorder. Therefore, we highlight the following rephrasing in the introduction by adding ref 24*:

"Such an issue has been addressed at the ensemble-average level by introducing short-range correlations,22–24 but Qs of Anderson-localized modes are only on par with engineered cavities in the case of slow-light photonic crystal waveguides subjected to minute fabrication disorder,25 especially in the presence of long-range inter-hole correlations.24*