Letter to the editor


We are grateful to Professor Nadarajah for pointing out an erroneous note in our paper Bebbington et al. [1]. The sentence following equation (5) in that paper should read as follows: “The function (5) is monotonic in \( t \) and so the distribution under consideration belongs to the class postulated by Gurvich et al. [14].” Indeed, the monotonicity of function (5) in [1] follows from, for example, equation (6) in Bebbington et al. [1], due to the fact that \( h(t) = G(t) \). Since the hazard rate function \( h(t) \) is positive, the function \( G(t) \) is increasing. Hence, we have the monotonicity of \( G(t) \) and, in turn, the fact that the ‘flexible Weibull (FW) extension’ is a cdf. We remark that, having introduced the formulation \( F(t) = 1 - \exp[-aG(t)] \) in their equation (8), Gurvich et al. [2] immediately assume the approximation \( G(t) = bt^b \exp[ct] \) in their equation (9), and limit their subsequent analysis to this particular case. We take this opportunity to also note that, in addition to the good fit of the FW distribution to a number of reliability engineering life-time data as discussed in Bebbington et al. [1], we have recently observed excellent performance of the FW distribution when modeling human mortality data. The latter results are discussed in detail by Bebbington et al. [3].

References


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