When repair is possible and with the assumption that all links have the same failure rate λ and same repair rate μ, a simplified expression can be obtained for steady-state availability by substituting $a \equiv \mu/(\lambda + \mu)$ for p_i in the reliability expression $R(S \rightarrow T)$: $\mathrm{SA}(S \rightarrow T) = 2a^2 + 2a^3 - 5a^4 + 2a^5$

The mean time between failures is given by the same expression with $a = (1/\lambda) + (1/\mu)$.

Similar analysis can be performed to obtain expressions for tree connectivity and multi-terminal connectivity.

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A Multi-Step Stress-Strength Model of a Parallel System

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On page 122, equation (A18) should read:

$$p_{35} = 2F(s)F(s/2) - F^2(s/2) \qquad \text{(A18)}$$

The following references on page 123 should read:

[2] M. Shinozuka, H. Itagaki, "On the reliability of redundant structures", *Annals of Reliability and Maintainability,* vol 5, 1966, pp 605-610.
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