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Paris' exponent m<2 and behaviour of short cracks

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I came across a very interesting paper in Engineering Fracture Mechanics about a year ago. It gives some new results of stochastic aspects of fatigue. The paper is:
”On the distribution and scatter of fatigue lives obtained by integration of crack growth curves: Does initial crack size distribution matter?” by M. Ciavarella, A. Papangelo, Engineering Fracture Mechanics, Vol 191 (2018) pp. 111–124.
The authors remind us of the turning point the a Paris' exponent m=2 is. Initial crack length always matters but if the initial crack is small, the initial crack is seemingly very important for the if m>2. For exponents less than 2, small initial cracks matters less or nothing at all. If all initial cracks are sufficiently small their size play no role and may be ignored at the calculation of the remaining life of the structure. Not so surprising this also applies to the stochastic approach by the authors.
What surprised me is the in the paper is the fuzz around small cracks. I am sure there is an obstacle that I have overlooked. I am thinking that by using a cohesive zone model and why not a Dugdale or a Barenblatt model for which the analytical solutions are just an inverse trigonometric resp. hyperbolic function. What is needed to adopt the model to small crack mechanics is the stress intensity factor and a length parameter such as the crack tip opening displacement or an estimate of the linear extent of the nonlinear crack tip region.
I really enjoyed reading this interesting paper and get introduced to extreme value distribution. I also liked that the Weibull distribution was used. The guy himself, Waloddi Weibull was born a few km's from my house in Scania, Sweden. Having said that I will take the opportunity to share a story that I got from one of Waloddi's students Bertram Broberg. The story tells that the US army was skeptic and didn't want to use a theory (Waloddi's) that couldn't even predict zero probability that object should brake. Not even at vanishing load. A year later they called him and told that they received a cannon barrel that was broken already when they pulled it out of its casing and now they fully embraced his theory.
Per Ståhle