

1131-58-334

Jochen Brüning (bruening@mathematik.hu-berlin.de), Institut für Mathematik, Humboldt Universität zu Berlin, Unter den Linden 6, D-10099 Berlin, Germany, **Franz W Kamber** (kamber@math.uiuc.edu), Dept. of Mathematics, University of Illinois, 1409 W. Green S, Urbana, IL 61801, and **Ken Richardson*** (k.richardson@tcu.edu), Dept. of Mathematics, Texas Christian University, Fort Worth, TX 76129. *New formula for the equivariant index.*

We prove a new formula for the multiplicities of the index of an equivariant transversally elliptic operator on a G -manifold. The formula is a sum of integrals over blowups of the strata of the group action. Among the applications, we obtain a new index formula for all basic Dirac operators on Riemannian foliations, a problem that was open for many years. (Received July 18, 2017)