

## Mechanising Mathematical Proof: a Progress Report

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Advances over the past ten years or so make it feasible to use a computer to help to generate and to check symbolic proofs of highly non-trivial mathematics. This is not only a fascinating challenge in its own right, but many feel that it is the only way to gain real confidence in results involving large-scale calculations, such as Hales' proof of Kepler's sphere-packing conjecture. I will give a report on recent progress, explaining why the approach really does give assurance and trying to give a feel for what it's like to do mathematics in this way.