

THE ROLE OF SYMBOLIC COMPUTATION IN MATHEMATICS

FRANZ WINKLER

ABSTRACT. The scientific field of Symbolic Computation constitutes a bridge between Mathematics and Informatics. The goal is to systematically extract algorithmic aspects of mathematical theories and make them available in software systems for mathematical research, education, and mathematical problem solving. We argue, however, that Symbolic Computation does not only make use of already existing mathematics, but it creates new mathematics and exhibits relations between different mathematical areas.

Johannes Kepler Universität, Linz, Austria
E-mail address: Franz.Winkler@jku.at