MATHEMATICAL BIOGRAPHY OF PHIL GRIFFITH

By the late 1950s and throughout the 1960s the way in which problems in algebra were formulated and solved was greatly influenced by methods of homological algebra. Cartan and Eilenberg's seminal text, Homological Algebra, was published in 1956. No doubt for that reason Phil Griffith's early forays into mathematical research centered on problems that had a hint of homological flavor and for the most part could be translated into that language. His PhD advisor, Paul Hill, was a master in transfinite methods that he mostly applied to questions arising in the theory of abelian groups. The combination of view points proved to be lucky for the research fortunes of Griffith during the summer of 1967 in which he solved the Baer splitting problem for abelian groups (an abelian group G was called a Baer group provided any extension of a torsion group by G must be split exact; the problem had remained open for 30 years). Other results in the context of abelian groups were obtained by Griffith during this early period, e.g., he was first to construct, for prescribed $n > 0$, non-free abelian groups in which each subgroup of cardinality less than "aleph n" is free (a problem from Fuch's volumes on abelian groups). Perhaps it is fair to say that Griffith's main research success came from attempts to solve problems rather than to formulate and develop complex theoretical foundation. In 1970 he wrote a monograph, Infinite Abelian Group Theory, that was published by University of Chicago Press.

In 1968–1970 Griffith held a postdoctoral position at University of Chicago. Under the tutelage of Irving Kaplansky he developed a keen interest in the work of M. Auslander and H. Bass. While at Chicago, Griffith was fortunate to be in the company of D. Eisenbud, E.G. Evans and J.C. Robson. The research accomplished by Griffith during his Chicago experience was mainly focused on questions surrounding finite dimensional algebras and Artin rings. He collaborated with Eisenbud and Robson on these topics. However his interest in commutative algebra had begun in earnest, and he would later begin a ten year collaboration with E.G. Evans in that subject.

In 1970 Griffith became a member of the University of Illinois faculty, and in 1971 he was awarded an Alfred P. Sloan Foundation fellowship. In 1972 he was a visiting faculty member at Aarhus Universitet (Denmark). It was here while listening to lectures of many algebraic geometers (especially the French algebraic geometers) that Griffith's research became directed towards the newly developed area one might call "homological commutative algebra".