1026-20-26 **Derek F. Holt*** (dfh@maths.warwick.ac.uk), Mathematics Institute, University of Warwick, Coventry, CV4 7AL, England. *Garside Groups Have FFTP.*

There seems to be no counterexample known to the following "conjecture":

A group is automatic if and only if it has a finite generating set with respect to which the set of geodesic words is a regular set,

although there appears to be no reason to expect that either implication might be provably correct.

A group satisfies the "falsification be fellow traveller porperty" (FFTP) with respect to a given finite generating set if there is a constant k such that each non-geodesic word k-fellow travels with an equivalent shorter word. It is easy to see that FFTP implies regularity of geodesics, and fellow travelling is a central concept in the theory of automatic groups, so FFTP offers a tenuous link between the two properties in the above conjecture.

It turns out that many of the known classes of automatic groups, including word-hyperbolic groups, virtually abelian groups, geometrically finite hyperbolic groups, and Coxeter groups have FFTP with rest to appropriate generating sets. In this talk, we shall outlne a proof that a further class of automatic groups, the Garside groups (which includes braid groups and Artin groups of finite type), have FFTP with respect to the generating set consisting of the divisors of the Garside element. (Received January 15, 2007)