1037-20-363 **Daniel C. Cohen** and **Michael J. Falk*** (michael.falk@nau.edu), Dept. of Mathematics and Statistics, Northern Arizona University, Flagstaff, AZ 86011-5717, and **Richard Randell**.
Arrangement groups and right-angled Artin groups.

Let $\mathcal{A}$ be an arrangement of complex hyperplanes, with complement M, and let $G(\mathcal{A}) = pi_1(M)$. We study the homomorphism *phi* of G to the cartesian product $prodG(\mathcal{A}_X)$ of groups of rank-two subarrangements. The image is normal, and the cokernel is free abelian. If the induced homomorphism on the third factor of the lower central series is injective, then $\mathcal{A}$ is a em decomposable arrangement, by definition. In this case, modulo the nilpotent residue, *phi* represents G as a subgroup of a right-angled Artin group, with free abelian quotient. This reproduces and generalizes, weakly, the examples of Matei and Suciu, and Artal-Bartolo, Cogolludo, and Matei, of arrangements with Bestivina-Brady fundamental groups, but in a natural and elementary way. We discuss implications in general for residual nilpotence, linearity, and torsion in arrangement groups, and propose a generalization of the construction using generating functions and multinets. (Received February 05, 2008)