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Eugen Andrei Ghenciu* (ffeag@uaf.edu), P.O. Box 750232, Fairbanks, AK 99775. *Gibbs States on the Symbolic Space over a Finite Alphabet.*

We study subshifts of finite type on the symbolic space generated by incidence matrices over a finite alphabet. Given a function f on the symbolic space, we derive necessary and sufficient conditions in order that a Gibbs state exists for the function f . We generalize previous results of Mauldin, Urbanski and Sarig to the case when the incidence matrix is not assumed to be finitely irreducible. We look at important connections with conformal graph directed Markov systems. (Received August 06, 2008)