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**Eran Nevo\*** (en87@cornell.edu). *Title: Face enumeration: from spheres to flag spheres.*

Two well known conjectures in f-vector theory are the following: 1. McMullen's generalized lower bound conjecture: the g-vector of a (homology-) sphere is nonnegative. 2. Gal's conjecture: the gamma-vector of a flag (homology-) sphere is nonnegative.

By introducing new "g-vectors", we will present new conjectured lower bounds on face-vectors of spheres with bounded dimension of minimal non-faces. These interpolate between conjectures 1 & 2 above.

Further conjecture and results joint with Kyle Petersen, on upper bounds on face numbers of flag spheres, will be presented. (Received January 20, 2010)