1031-14-72   **Valerie M Hower*** (`vhower@math.uga.edu`), 385 Oak Tree Square, Athens, GA 30606. $\mathbb{Z}_2$ *Hodge*
spaces of fans.

I will introduce the notion of a cosheaf on a fan Σ and define the $\mathbb{Z}_2$ Hodge spaces of Σ, denoted $H_{pq}(\Sigma)$. I will then compute $H_{pq}(\Sigma)$ when Σ is the normal fan of a reflexive polytope. Finally, I will show how one can use the $\mathbb{Z}_2$ Hodge spaces of Σ to gain information about the topology of $X_\Sigma(\mathbb{R})$ and $X_\Sigma(\mathbb{C})$, the real and complex toric varieties associated to the fan Σ. (Received August 03, 2007)