1039-30-53 **Brian Maurizi*** (bmaurizi@math.wustl.edu), 1 Brookings Drive, Campus Box 1146, Saint Louis, MO 63130, and **H Queffelec**. *Function Spaces of Dirichlet Series.* Preliminary report.

Dirichlet Series provide the connection between complex analysis and number theory; the Riemann Zeta Function and Dirichlet L-functions are examples of Dirichlet Series. An (ordinary) Dirichlet Series is a function of the form

$$f(s) = \sum_{n=1}^{\infty} a_n n^{-s}$$

where s is complex. We will examine the uniform algebra $\mathcal{H}^\infty$ of Dirichlet Series which are bounded in the right half plane, as well as the Hilbert Space $\mathcal{H}^2$ of Dirichlet Series which satisfy

$$\sum_{n=1}^{\infty} |a_n|^2 < \infty$$

We aim to compare $\mathcal{H}^\infty$ and $\mathcal{H}^2$ with the classical Hardy Spaces H^∞ and H^2, so we will look at the version of the Corona Theorem for $\mathcal{H}^\infty$, the multiplier algebra of $\mathcal{H}^2$, and results relating the norm of the function to norms of its coefficient sequence. (Received February 29, 2008)