1072-20-195 **Charalambos M Koupparis*** (ckoupparis@gc.cuny.edu), NY, and **Delaram Kahrobaei** and **Vladimir Shpilrain**. *Public Key Exchange Using Matrices Over Group Rings.*

We propose to look at the Diffie-Hellman key exchange protocol using matrices over group rings. In order to determine the validity and security of this scheme the Decision Diffie-Hellman (DDH) and Computational Diffie-Hellman (CDH) problems will be addressed. We will be working with matrices defined over group rings $\mathbb{Z}_m[S_n]$, and specifically $\mathbb{Z}_2[S_5]$.

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