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**Jozef H. Przytycki\*** (przytyck@gwu.edu), George Washington University, Washington, DC 20052, and **Xiao Wang**. *The second Yang-Baxter homology of the Homflypt polynomial of links.*

We consider the homology of a column unital Yang-Baxter operator. In particular, we prove that the second homology is given by the following theorem:

Let  $R_m$  be a unital Yang-Baxter operator giving Homflypt polynomial on level  $m$ , then for  $k = Z[y]$ :

$$H_2(R_m) = k^{1+\binom{m}{2}} \oplus \left( k/(1-y^2) \right)^{\binom{m}{2}} \oplus \left( k/(1-y^4) \right)^{m-1}.$$

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