

Heronian friezes and Plucker relations

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Motivated by computational geometry of point configurations on the Euclidean plane, and by the theory of cluster algebras of type A, Sergey Fomin and Linus Setiabrata have recently introduced Heronian friezes - the Euclidean analogues of Coxeter's frieze patterns. I will use Plucker relations in the Grassmannian $\text{Gr}(3,n)$ to give relations that hold amongst some of the entries of the Heronian frieze of order n . Furthermore, I will present a connection between certain subfriezes of a Heronian frieze and Plucker friezes $P(3,n)$, and then show that some determinants of the matrices whose elements lie in those subfriezes are vanishing.