

1035-05-1025

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Binghamton University, Binghamton, NY 13902-6000. *A Non-Tableaux Proof for Duality of the  
Euclidean Property for Oriented Matroids.*

It is a well-known fact that if  $(\mathcal{M}, g, f)$  is an Euclidean oriented matroid program, then  $(\mathcal{M}^*, f, g)$  is Euclidean. The original proof, mimicking the Simplex Algorithm, uses pivot steps and tableaux to do the job. We will simplify the proof. In our proof we will work with a new concept called labeled cycles. The proof goes by proving that there is bijection between non-Euclidean labeled cycles in  $(\mathcal{M}, g, f)$  and non-Euclidean labeled cycles in  $(\mathcal{M}^*, f, g)$ . This bijection is quite simple and it has a very explicit formula. (Received September 18, 2007)