

1146-15-97

**Pauline van den Driessche\*** (pvdd@math.uvic.ca), Dept Math & Stats, University of Victoria, Victoria, B.C. V8W 2Y2, Canada. *Sign Patterns Requiring a Unique Inertia.*

A sign pattern requires a unique inertia if every real matrix in the sign pattern class has the same inertia. Several sufficient or necessary conditions are given for a sign pattern to require a unique inertia. All sign patterns of orders 2 and 3 that require a unique inertia are characterized. If the underlying graph of a sign pattern is a tree, then a linear-time pruning algorithm is shown to determine whether or not a symmetric sign pattern requires a unique inertia. [Joint work with J.C.-H. Lin and D.D. Olesky.] (Received January 10, 2019)