980-55-270   **D C Cohen**, **G C Denham*** (`gdenham@uwo.ca`) and **A I Suciu**. *Torsion in homology of Milnor fibres.* Preliminary report.

Recently Dimca and Neméthi have posed the following question: whether a homogeneous polynomial defining a complex hypersurface may have integer torsion in the homology of its Milnor fibre, but not in the homology of the hypersurface complement. We show that this is indeed possible; in fact, the Milnor fibre associated with a hyperplane (multi)arrangement may have integer torsion of any prime order. This is established with the help of explicit examples, making use of what is known about the characteristic varieties of arrangements. (Received August 20, 2002)

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