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Hyperplane Arrangements:  
At the Crossroads of Topology and Combinatorics

Much of the fascination with arrangements of complex hyperplanes comes from the rich interplay between the combinatorics of the intersection lattice and the algebraic topology of the complement. A key bridge between the two is provided by the resonance varieties of the cohomology ring and by the characteristic varieties of the fundamental group. This approach helps explain how certain homological invariants associated to the Milnor fibration of the complement can be computed in terms of multinets supported by the underlying matroid.