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Abstract:

Recently, it has received renewed attention that expanding shells affect significantly on the evolution of gas structures in a wide range of physical scales. A "bubble scenario" was proposed to comprehensively explain the formation of both molecular clouds and young stars. To search for hierarchically multi-scale shell structures is the key for such scenario. In this context, bubble G24 is one of the ideal targets. Mapping the hierarchical G24 system with four snap-shot observations, we will analyse the continuum intensity, recombination lines, and HI 21 cm emission. The major aims are to reveal signatures of interaction between different gas components in G24, and to search for evidence of the first stage of the bubble scenario, i.e., the bubble induced cloud formation.