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Galaxy Dynamics and Star Formation in the Inner Regions of SINGG Galaxies.

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Abstract content
   (Max 300 words)
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SINGG-SINGG is an H-alpha, R-band and UV survey of HI-selected star forming galaxies from HIPASS. A spectroscopic survey of a subsample of the SINGG galaxies was performed using the WIYN SparsePAK integral field spectrograph in order to study the link between galaxy dynamics and star formation over a wide range of HI masses, metallicities and star formation rates. I reduced and analyzed the WIYN SparsePAK data and produced velocity fields and rotation curves. WISE near-infrared and mid-infrared observations of these galaxies were used in combination with the optical observations to characterize the star formation and stellar properties of the galaxies. We developed and expanded star formation models that incorporate the kinematics of galaxies in order to predict their star formation surface densities. The data and observations were used to determine the star formation rates and kinematic properties of the inner regions of the galaxies in our sample. These were used to test the star formation models and models of the gravitational potential wells in the inner parts of galaxies.

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