

Abstract Submitted  
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**Excess of Diffuse Gamma-ray Emission from the Inner Galaxy: Bubbles, Jets, Dark Mater** MENG SU, Massachusetts Inst of Tech-MIT — I will first talk about recent progress on the study of Galactic diffuse gamma-ray emission, with the focus on the discovery of Fermi gamma-ray bubbles and multi-wavelength observations on this structure. I will further show evidence for collimated jet/cocoon structure in the inner Galaxy. Our numerical simulation demonstrates that the bubble structure could be evidence for past accretion events of the central supermassive black hole. I will then summarize the current state of dark matter search with Fermi Gamma-ray Space Telescope data, with the focus on gamma-ray line searching from the Galactic center, galaxy clusters, and dwarf galaxies. I will also discuss possible instrumental systematics of the Fermi-LAT instrument that might contaminate the line searching with a overview of the future prospective. Finally, we have recently proposed to change the survey strategy of Fermi to increase the exposure at Galactic center by more than a factor of 2 over 2014. This survey strategy has been initiated since December 2013.

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