# The Central Black Hole Mass - Spiral Arm Pitch Angle Relation: Results and Future Work

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We have recently found evidence for a correlation between the central black hole mass of local spiral galaxies and the pitch angles of their spiral arms, $M_{BH} - P$. The correlation was established using imaging of 34 galaxies whose black hole masses have been determined by direct methods, including reverberation mapping, maser modeling, and central gas and stellar dynamics. Pitch angles are measured using an iterative application of a 2DFFT algorithm. The relation as established has been applied to a volume limited sample of local galaxies to compute a local black hole mass function, converting measured pitch angles to black hole masses through the relation. We present these results, along with a possible interpretation of the $M_{BH} - P$ relation, and our efforts to evaluate the relation at higher lookback times.