



Beyond Harmonics: Recent Mascon Solutions from GRACE

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Spherical harmonic solutions from GRACE continue to improve and have formed the basis of most science analysis results from the project. For several years there have been limited experiments with the use of discrete mascons instead of harmonics as the gravity solution basis function. These have certain advantages over harmonics in being localizable spatially, although they also open a wide range of possible choices of mascon spacing, correlation, temporal resolution, and hybrid mascon/harmonic solutions. We have extended our JPL discrete spherical cap mascons solutions to include multiple years and nearly global coverage. We will present comparisons of these solutions to our baseline harmonic solutions and examine the variation in solution quality with parameterization details such as spatial correlation over various parts of the globe.