Perturbative type II amplitudes for BPS interactions

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I shall consider the perturbative contributions to BPS four graviton interactions in toroidally compactified type II string theory, and derive Poisson equations satisfied by these moduli dependent string amplitudes. These equations have eigenvalues that are completely determined by the structure of the integrands of the multi-loop amplitudes. The source terms are given by boundary terms of the moduli space of Riemann surfaces corresponding to both separating and non-separating nodes.