SPACES OF CHORD DIAGRAMS OF SPHERICAL CURVES

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In this talk, we give a definition of a family F of integer-valued functions, each of which is a map from the set of spherical curves by using spaces of chord diagrams. We introduce certain elements of the free $\mathbb{Z}$-module generated by chord diagrams with at most a finite number of chords, called relators of Type I, SII, WII, SIII, WIII. We also introduced another family G of functions of chord diagrams, where G is simpler than F. If each of G vanishes on a finite number of relators of Type I (SII, WII, SIII, WIII, resp.), then, a function in F is invariant under Reidemeister moves of type RI (strong RII, weak RII, strong RIII, weak RIII, resp.)