$$\vec{r} \equiv \vec{r}_\kappa - \vec{R}_\kappa, \quad \vec{z} \equiv \vec{r}_\lambda - \vec{R}_\lambda,$$
$$\vec{Y} \equiv \vec{r}_S - \vec{R}_S = \vec{r}_\rho - \vec{R}_\rho . \tag{20}$$

Six random numbers were chosen for the components of the $\vec{r}$ and $\vec{z}$ vectors. Importance sampling was used for the two random numbers chosen for $|\vec{r}|$ and $|\vec{z}|$. It was found that biasing the other four variables had a much smaller effect on statistics and was therefore not employed. For this six-dimensional point in phase space $G(\vec{r}_\lambda\ \vec{r}_\kappa)$ was evaluated using one of the above techniques. This process was repeated for a total of typically 10 000 to 100 000 points. It is estimated that the computer time used was approximately an order of magnitude less than for a full Monte Carlo simulation for comparable statistical errors.

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