$$(\mu\nu|\lambda\sigma) \equiv \int \phi_{\mu}(\mathbf{r}_1)\phi_{\nu}(\mathbf{r}_1)r_{12}^{-1}\phi_{\lambda}(\mathbf{r}_2)\phi_{\sigma}(\mathbf{r}_2)d\mathbf{r}_1d\mathbf{r}_2$$