We investigate spacing problems such as the pair correlation statistics of fractional parts of sequences $\alpha x_n, n \in \mathbb{N}$, where $x_n$ is rational or integer valued and $\alpha$ is a real number. We offer examples of sequences $x_n$ whose pair correlation behaves as that of random sequences for almost all real numbers $\alpha$. We also investigate the pair correlation function for the fractional parts of sequences $\vec{t} \cdot \vec{x}$, where $\vec{x}$ is a rational valued vector sequence and $\vec{t} \in \mathbb{R}^r$ and provide new class of sequences $\vec{x}$ whose pair correlation function behaves as that of random sequences for almost all real vectors $\vec{t}$. Part of this is joint work with Melinda Lanius and Alexandru Zaharescu. (Received September 19, 2016)