We give a brief discussion about the Hardy-Littlewood-Sobolev type systems:

\[
\begin{aligned}
(-\Delta)^{\gamma/2} u &= v^q, \quad u > 0, \quad \text{in } \mathbb{R}^n, \\
(-\Delta)^{\gamma/2} v &= u^p, \quad v > 0, \quad \text{in } \mathbb{R}^n.
\end{aligned}
\]  

(1)

These are also sometimes called Lane-Emden type systems. Beyond the existence, non-existence, and classification of positive solutions, we also study the integrability, asymptotic at infinite, and symmetries of positive solutions. (Received January 20, 2015)