1163-35-195   **Lingju Kong*** (`lingju-kong@utc.edu`). *Uniqueness of weak solutions for a biharmonic system.*
We study the biharmonic system

$$
\begin{cases}
\Delta\left(|\Delta u|^{p(x)-2}\Delta u\right) = a(x)|u|^{p(x)-2}u + f(x,u,v) & \text{in } \Omega, \\
\Delta\left(|\Delta v|^{q(x)-2}\Delta v\right) = b(x)|v|^{q(x)-2}v + g(x,u,v) & \text{in } \Omega, \\
u = \Delta u = 0, \; v = \Delta v = 0 & \text{on } \partial\Omega,
\end{cases}
$$

Using monotone operator theory, we prove that, under some suitable conditions, the above system has a unique weak solution. We also discuss some properties of the solution. (Received August 26, 2020)