Let $A$ be a connected, $\mathbb{N}$-graded algebra over an algebraically closed field $K$. Following the seminal work of M. Artin, J. Tate and M. Van den Bergh one can associate to $A$ a certain inverse system of projective schemes: $\Gamma = \{\Gamma_n\}_{n \geq 1}$. The closed points of $\Gamma_n$ are in one-to-one correspondence with the truncated point modules of $A$ of length $n + 1$. Let $B(\Gamma) = K \oplus \bigoplus_{n \geq 1} H^0(\Gamma_n, \mathcal{O}_{\Gamma_n}(1))$. Then $B(\Gamma)$ can be given the structure of a graded $K$-algebra. We call $B(\Gamma)$ the global section ring associated to $\Gamma$.

In this talk I will first discuss a theorem that characterizes, in terms of local cohomology, when $B(\Gamma)$ is generated in degree 1. In the second part, I will determine a presentation of the ring $B(\Gamma)$ in the case of a certain non-Artin-Schelter regular quadratic twisted tensor product of $K[x, y]$ and $K[z]$. Presentations of the global section rings of all quadratic twisted tensor products of $K[x, y]$ and $K[z]$ have recently been determined by the authors. (Received September 14, 2020)