Toka Diagana* (tokadiag@gmail.com), Howard University, Department of Mathematics, 2441 6th Street NW, Washington, DC 20059.\textit{Existence of Pseudo Almost Automorphic Solutions to Some Second-Order Partial Evolution Equations.} Preliminary report.

Let $\mathbb{X}$ be a Banach space. This talk is concerned with the existence of pseudo almost automorphic solutions to the class of second-order partial evolution equations

$$\frac{d}{dt} \left[ Q'(t) + F(t, Q(t)) \right] = A(t)Q(t) + G(t, Q(t)), \quad t \in \mathbb{R}$$

where $A(t)$ for $t \in \mathbb{R}$ is a family of sectorial linear operators on $\mathbb{X}$ and $F, G : \mathbb{R} \times \mathbb{X} \mapsto \mathbb{X}$ are jointly continuous functions satisfying some additional conditions. Under some reasonable sufficient conditions, various existence results will be established. A few examples will also be discussed. (Received May 16, 2010)