1124-13-232 **Martine Picavet*** (picavet.gm@wanadoo.fr) and **Gabriel Picavet**. *FCP or FIP extensions and the Chinese Remainder Theorem.*

Let $R \subseteq S$ be an extension of commutative rings and $[R, S]$ the set of R-subalgebras of S. Then $R \subseteq S$ is said to have FCP (resp. FIP) if each chain of the poset $([R, S], \subseteq)$ is finite (resp. $[R, S]$ is finite). The aim of this talk is to get an extension of the Chinese Remainder Theorem in the following sense. Let R be a ring, $n > 1$ an integer and $I_1, \ldots, I_n$ ideals of R distinct from R, but not necessarily distinct, such that $\cap_{j=1}^n I_j = 0$. Consider the ring extension $R \subseteq \prod_{j=1}^n (R/I_j) =: S$ with conductor C. This extension is an isomorphism if $C = R$ (Chinese Remainder Theorem). We address the following questions: When is $R \subseteq S$ a minimal extension, or more generally an FCP or FIP extension? We generalize a Ferrand-Olivier's result when $n > 2$. If $R \subseteq S$ a minimal extension, then $\{I_1, \ldots, I_n\}$ satisfies a weak Chinese Remainder Theorem. We prove that $R \subseteq S$ has FCP if and only if R/C is Artinian. If $n = 2$, we get that $R \subseteq S$ has FIP if and only if $R/(I_1 + I_2)$ has finitely many ideals. The characterization of the FIP property when $n > 2$ is much more complicated. (Received September 10, 2016)