1145-37-1379   **Anh N Le*** (`anhle@math.northwestern.edu`), Department of Mathematics, 2033 Sheridan Rd, Evanston, IL 60208. *Almost periodic along subsequences.* Preliminary report.

An *almost periodic sequence* is a bounded sequence of the form $f(n) = \sum_{i=k}^{\infty} c_k e^{2\pi i n \alpha_k}$ where $\alpha_k \in \mathbb{R}$. A sequence $(r_n)_{n \in \mathbb{N}}$ is called *free* if one can obtain any bounded sequence by evaluating an almost periodic sequence along (r_n). In this talk, I'll present a criterion for a sequence to be free and sketch why every lacunary sequence, like (2^n), is free. This result answers a question in Frantzikinakis' list of open questions in multiple ergodic averages. I'll also provide some examples of non-free sequences. (Received September 21, 2018)