► LONGYUN DING, *On equivalence relations generated by Schauder bases.*
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In this talk, a notion of Schauder equivalence relation $\mathbb{R}^{\mathbb{N}}/L$ is introduced, where L is a linear subspace of $\mathbb{R}^{\mathbb{N}}$ and the unit vectors $e_n = (0, 0, \cdots, 0, \overset{n}{1}, 0, \cdots)$ form a Schauder basis of L. The main theorem is to show that the following conditions are equivalent:

(1) the unit vector basis is boundedly complete;
(2) L is F_σ in $\mathbb{R}^{\mathbb{N}}$;
(3) $\mathbb{R}^{\mathbb{N}}/L$ is Borel reducible to $\mathbb{R}^{\mathbb{N}}/\ell_\infty$.

We show that Schauder equivalence relation generalized by any basis of ℓ_2 is Borel bireducible to $\mathbb{R}^{\mathbb{N}}/\ell_2$ itself, but it is not true for bases of c_0 or ℓ_1. Furthermore, among all Schauder equivalence relations generated by sequences in c_0, we find the minimum and the maximum elements with respect to Borel reducibility.

We also show that $\mathbb{R}^{\mathbb{N}}/\ell_p$ is Borel reducible to $\mathbb{R}^{\mathbb{N}}/J$ iff $p \leq 2$, where J is James' space.