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タイトル TITLE	Structure and randomness in $\text{II}_1$ factors		
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$\text{II}_1$  factors are non-commutative versions of the function algebra  $L^\infty([0, 1])$ , the way matrix algebras  $M_{n \times n}(\mathbb{C})$  are analogue to finite spaces. They arise as infinite tensor products and ultra products of matrix algebras, but also from groups  $\Gamma$  and their measure preserving ergodic actions on probability spaces  $\Gamma \curvearrowright X$ . A key analysis tool to study  $\text{II}_1$  factors is *deformation-rigidity theory*, which exploits the tension between “soft” and “rigid” parts of the algebra to unravel its building data. This fits within the fundamental dichotomy *structure versus randomness*, which appeared in many areas of mathematics in recent years. I will present several classification results obtained through this technique, showing for instance that factors arising from Bernoulli actions of property (T) groups  $\Gamma \curvearrowright X$  “remember” both the group and the action, and that free ergodic actions of the free groups  $\mathbb{F}_n$  remember the rank  $n$ .