Sonia Navarro Flores*, sonian@matmor.unam.mx. Borel ideals and topological Ramsey spaces.

It is known that the partial order $P(\omega)/\text{Fin}$ forces a Ramsey ultrafilter. This quotient has several interesting properties, for example, $(P(\omega)/\text{Fin}, \subseteq)$ is forcing equivalent to the Ellentuck space with the almost inclusion order, which is the prototypical example of a topological Ramsey space. Also, Todorcevic proved that under large cardinal assumptions every Ramsey ultrafilter is generic for $(P(\omega)/\text{Fin}, \subseteq)$. In this talk we present some advances done in order to classify those Borel ideals $\mathcal{I}$ such that the quotient $P(\omega)/\mathcal{I}$ is forcing equivalent to a topological Ramsey space. This classification is interesting because the Ramsey structure inside those topological Ramsey spaces is crucial to understand combinatorial properties for such ideals and ultrafilters forced by those quotients. (Received September 17, 2019)