# Schedule of Short Talks on Saturday 08/03.

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|---|---|
| 2:00 | Ho |
| 2:30 | Vafaee |
| 3:00 | Pinzón-Caicedo |
| 3:30 | Kalafat |
| 4:00 | Durusoy |

## Chung-I Ho

## Geometric automorphism groups of symplectic 4-manifold

**Abstract:** For a symplectic 4-manifold $M$, we study the relation between the automorphism group $A(M)$ of its intersection form and the subgroup $D(M)$ induced by $\mathrm{Diff}^+(M)$.

## Faramarz Vafaee

## On the knot Floer homology of twisted torus knots

**Abstract:** In this work, we study the knot Floer homology of the twisted $(p, kp \pm 1)$ torus knots. Specifically, we classify all the L-space twisted $(p, kp \pm 1)$ torus knots. The key ingredient of the proofs is that all these knots are $(1, 1)$ knots. We also pose a few related questions at the end of the talk.

## Juanita Pinzón-Caicedo

## Independence of Whitehead Doubles in the Smooth Concordance Group Through $SO(3)$-Chern-Simons Invariants.

**Abstract:** In the 1980s Furuta and Fintushel-Stern applied the theory of instantons and Chern-Simons invariants to develop a criterion for a collection of Seifert fibred homology spheres to be independent in the homology cobordism group of oriented homology 3-spheres. In turn, using the fact that the 2-fold cover of $S^3$ branched over the Whitehead double of a positive torus knot is negatively cobordant to a Seifert fibred homology sphere, Hedden-Kirk establish conditions under which an infinite family of Whitehead doubles of positive torus knots are independent in the smooth concordance group.
In the talk, I will review some of the definitions and constructions involved in the proof by Hedden and Kirk and I will introduce some topological constructions that greatly simplify their argument. Time permiting I will mention some ways in which the result could be generalized to include a larger set of knots.

Mustafa Kalafat

## Complex Surfaces of Locally Conformally Flat Type

**Abstract:** We show that if a compact complex surface admits a locally conformally flat metric, then it cannot contain a 2-sphere of non-zero self intersection. In particular, the surface has to be minimal. Then we give a list of possibilities. Joint work with C. Koca.

Daniel Selahi Durusoy

## Excursions in handlebodies

**Abstract:** In this talk I will show in slow motion certain sequences of moves in handlebody diagrams.