

# Topology Seminar

## Invitation to torus actions

**Abstract :** Any smooth vector field generates a "flow" in nature. Each flow looks like a curve which is homeomorphic to either a line, a circle, or a point. We say that a circle acts on a space  $X$  if every flow is either a circle or a point. More generally, we say that an  $n$ -dimensional torus acts on  $X$  if there are commuting  $n$  independent circle actions on  $X$ .

In this talk, we will see how a global (topological/geometric) information (such as the Euler number, the fundamental group, (co)homology, etc) of the ambient space  $X$  with a torus action can be encoded by its fixed points (or constant flows). We also see many examples, called toric varieties, and compute the above invariants explicitly in terms of the fixed point data.

**일시:** 2021. 1. 22 금요일, 14:00 ~ 17:00

**장소:** Zoom (ID: 842 1006 2982)

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