The Futures of Reactive Synthesis

Monday

9:00–10:30  INTRODUCTION
   9:00 - 9:30  Everyone
               *Short introduction (30 sec, no slides)*
   9:30 - 10:00  Bernd Finkbeiner
                 *A primer on reactive synthesis*
   10:00 - 10:30  Guillermo A. Perez
                 *A primer on SYNTCOMP*

10:30–11:00  Coffee break

11:00–12:00  OPEN PROBLEM SESSION

12:15–14:00  Lunch

14:00–15:30  SYMBOLIC ALGORITHMS FOR SYNTHESIS
   14:00 - 15:00  Anne-Kathrin Schmuck
                 *Invited talk: Reactive Synthesis for Feedback Control*
   15:00 - 15:30  Q & A

15:30–16:00  Coffee break

16:00–17:30  WORKING SESSION 1
   16:00 - 17:30  Guillermo A. Perez
                 *Graph neural networks and reactive synthesis*
   16:00 - 17:30  Shaull Almagor
                 *Specification formalisms for synthesis of quantitative models*
   16:00 - 17:30  Pierre Ohlmann
                 *Positionality and memory in games*
   16:00 - 17:30  Nathanaël Fijalkow
                 *Programmatic reactive synthesis*

18:00–20:00  Dinner
Tuesday

9:00–10:30  **Constraint-based synthesis**

9:00 - 10:00  Armando Solar-Lezama

*Invited talk*

10:00 - 10:30  Q & A

10:30–11:00  Coffee break

11:00–12:00  **Contributed talks 1**

   11:00 - 11:20  Rüdiger Ehlers

   *Fixpoint Equations for Synthesis – Towards a Renewed Interest*

   11:20 - 11:40  Frederik Schmitt

   *Deep Learning for Reactive Synthesis*

   11:40 - 12:00  Niklas Metzger

   *Compositional Synthesis with Hyperproperties*

12:15–14:00  Lunch

14:00–15:30  **Working session 2**

   14:00 - 15:30  Frederik Schmitt

   *Deep learning for reactive synthesis*

   14:00 - 15:30  Rüdiger Ehlers, Tom van Dijk

   *Symbolic synthesis with BDDs and beyond*

   14:00 - 15:30  Shufang Zhu

   *Synthesis for LTL on finite traces*

15:30–16:00  Coffee break

16:00–17:00  **Summary of first two days**

18:00–20:00  Dinner
Wednesday

9:00–10:30  SyGuS
    9:00 - 10:00  Ruzica Piskac
        Invited talk
    10:00 - 10:30  Q & A

10:30–11:00  Coffee break

11:00–12:00  Contributed talks 2
    11:00 - 11:20  Mark Santolucito
        Reactive Synthesis as a Programming Language Paradigm
    11:20 - 11:40  Hazem Torfah
        Synthesizing pareto-optimal interpretations for black-box models
    11:40 - 12:00  Elizabeth Polgreen
        Synthesis modulo oracles

12:15–14:00  Lunch

14:00–17:00  Hike

18:00–20:00  Dinner
Thursday

9:00–10:30 \( \omega \)-Automata Learning

9:00 - 10:00 Dana Fisman  
Invited talk

10:00 - 10:30 Q & A

10:30–11:00 Coffee break

11:00–12:00 Contributed talks 3

11:00 - 11:20 Emmanuel Filiot  
Synthesis from LTL specifications and examples

11:20 - 11:40 Anca Muscholl  
On distributed synthesis

11:40 - 12:00 Rayna Dimitrova  
Solving Infinite-State Games via Acceleration

12:15–14:00 Lunch

14:00–15:30 Working session 3

14:00 - 15:30 Anca Muscholl  
Distributed synthesis

14:00 - 15:30 Guillermo A. Perez  
SYNTCOMP benchmarking

14:00 - 15:30 Cesar Sanchez  
Reactive synthesis beyond the Bools

15:30–16:00 Coffee break

16:00–17:00 Summary of past two days

18:00–20:00 Dinner
Friday

9:00–10:00  **CLOSED PROBLEM SESSION**
10:00–10:30  Coffee break
10:30–12:00  **WORKING SESSION 4**
12:15–14:00  Lunch