

April 24, 2019

AGENDA

Advancing Fusion with Machine Learning Research Needs Workshop Jointly Sponsored by FES & ASCR April 30 – May 2, 2019

Gaithersburg Marriott Washingtonian Center
9751 Washingtonian Boulevard, Gaithersburg, MD 20878
<https://www.orau.gov/advancingfusion2019/>

Chair: David Humphreys, General Atomics
Co-Chair: Ana Kupresanin, Lawrence Livermore National Laboratory
DOE/FES: John Mandrekas, Matthew Lanctot
DOE/ASCR: Randall Laviolette

Day 1: Tuesday, April 30

Time	Session Title	Chair(s)	Rapporteur
8:00 – 9:00	Registration	N/A	N/A
9:00 – 9:05	General Announcements	N/A	N/A
9:05 – 9:15	Welcome: James Van Dam	N/A	N/A
9:15 – 10:00	Workshop Intro: Humphreys/Kupresanin	Kupresanin/ Humphreys	N/A
10:00 – 11:00	Plenary 1: Data Assimilation and Machine Learning as Statistical Physics Problems Henry Abarbanel	Kupresanin	Humphreys
11:00 – 11:45	Science Panel: Canik/Hittinger	Kupresanin	Sabbagh
11:45 – 13:00	Lunch		
13:00 – 13:45	Control Panel: Kolemen/Patra	Humphreys	Wild
13:45 – 14:30	Models Panel:	Humphreys	D'Elia

April 24, 2019

	Boyer/Cyr		
14:30 – 15:15	Predictors Panel: Granetz/Lawrence	Humphreys	Rea
15:15 – 15:45	Coffee Break		
15:45 – 16:30	Data Panel: Schissel/Pascucci	Humphreys	Grierson
16:30 – 17:30	Wrapup/Summary Day 1; Brief for Day 2	Humphreys	Kupresanin

Day 2: Wednesday, May 1

Time	Session Title	Chair	Rapporteur
9:00 – 10:00	Plenary 2: AI and Machine Learning: From Self Driving Cars to Controlled Fusion Jeff Schneider	Humphreys	Kupresanin
10:00 – 11:30	Breakout Panel 1: Science	Canik/Hittinger	TBD
	Breakout Panel 2: Control	Kolemen/Patra	TBD
	Breakout Panel 3: Models	Boyer/Cyr	TBD
	Breakout Panel 4: Predictors	Granetz/Lawrence	TBD
	Breakout Panel 5: Data	Schissel/Pascucci	TBD
11:30 – 13:00	Lunch		
13:00 – 17:00	Breakouts Continue; prepare Day 3 presentations	N/A	N/A
17:00 – 17:30	Wrapup/Summary Day 2; Brief for Day 3	Kupresanin	Humphreys

Day 3: Thursday, May 2

April 24, 2019

Time	Session Title	Chair	Rapporteur
9:00 – 9:30	Science Panel Summary	Kupresanin	Sabbagh
9:30 – 10:00	Control Panel Summary	Kupresanin	Wild
10:00 – 10:30	Models Panel Summary	Kupresanin	D’Elia
10:30 – 11:00	Predictors Panel Summary	Kupresanin	Rea
11:00 – 11:30	Data Panel Summary	Kupresanin	Grierson
11:30 – 13:00	Lunch		
13:00 – 16:00	All panels: discussion, planning, writing in Breakouts	N/A	N/A
16:00 – 17:00	Workshop Wrapup and Actions	Humphreys	Kupresanin
17:00 – 18:00	Chairs + Panel Leads Coordinate Report Writing/Actions	N/A	N/A