International Conferences on Subseasonal to Decadal Prediction

Second International Conference on Subseasonal to Seasonal Prediction (S2S) and Second International Conference on Seasonal to Decadal Prediction (S2D)

September 17-21, 2018 – NCAR, Boulder (CO) - USA

Provisional Agenda (as of June 28, 2018)

MONDAY 17 SEPTEMBER	
8.00 – 8.30	Arrival/Registration
8.30 – 12.00	**Plenary Sessions - Main auditorium at Center Green (CG)**
8.30 – 9.40	**Welcome and Opening Remarks** *Antonio J. Busalacchi*
8.40 – 8.50	**NCAR** *Jean-Francois Lamarque*
8.50 – 9.00	**WMO/WCRP** *Guy Brasseur*
9.00 – 9.10	**WMO/WWRP** *Estelle De Coning*
9.10 – 9.20	**NOAA/MAPP** "Subseasonal to seasonal science and predictions initiatives of the NOAA MAPP Program" *Annarita Marrioti*
9.20 – 9.40	**S2S – Project achievements and future plans** *Frédéric Vitart and Andrew Robertson*
9:40 – 10.00	**WGSIP/DCPP – Project achievements and future plans** *Bill Merryfield and Doug Smith*
10.00 – 10.30	***Coffee Break***
10.30 – 11.00	**Opportunities and challenges towards skillful predictions** "Subseasonal to decadal prediction: Looking back on 40 years of progress - and projecting forward another 40 years" *Tim Palmer*
11.00 – 11.30	**Filling the research-operations gap** "Research Needs for advancing operational S2D forecasting infrastructure" *Arun Kumar*
11.30 – 12.00	**Connecting prediction information to application** *Lisa Goddard*
12.00 – 13.15	***Lunch***

13:15 – 17.45	**Parallel Sessions: Themes A and B**	
13.15 – 17.45	**S2S session Theme A1: Mechanisms of S2S predictability** North and Center CG	**S2D session Theme B1: Mechanisms of S2D predictability** FL auditorium (streaming South CG)
13.15 – 13.45	Brunet, Gilbert (Keynote): *Identifying wave processes associated with predictability across subseasonal to seasonal time scales (**A1-01**)*	
13.45 - 14.00	Toth, Zoltan: *Predictive signal and noise in sub-seasonal to decadal forecasts (**A1-02**)*	
14.00 - 14.15	Newman, Matt: *Sources of tropical subseasonal predictability beyond the MJO (**A1-03**)*	
14.15 - 14.30	Perlwitz, Judith: *Characteristics of the QBO-stratospheric polar Vortex connection on multi-decadal time scales (**A1-04**)*	
14.30 - 14.45	Kim, Ha-Rim: *Impact of statistically forecasted sea-ice boundary condition on the sub-seasonal prediction using atmospheric general circulation model (**A1-05**)*	
14.45 – 16.15	***Coffee Break*** **and Poster Session 1**	
16.15 – 16.30	Flatau, Maria: *The characteristics of Kelvin waves in the atmosphere-ocean coupled system (**A1-06**)*	
16:30 – 16.45	Dias, Juliana: *Diagnosing sources of operational forecast model errors in tropical-extratropical interactions (**A1-07**)*	
16.45 – 17.00	Lee, Robert: *ENSO modulation of MJO teleconnection to the North Atlantic & Europe and implications for subseasonal predictability (**A1-08**)*	
17.00 – 17.15	Stan, Cristiana: *The impact of Northern Hemisphere mid-latitude variability on tropical teleconnections (**A1-09**)*	
17.15 – 17.30	Lin, Hai: *Predicting the dominant patterns of subseasonal variability of wintertime surface air temperature in extratropical Northern Hemisphere (**A1-10**)*	
17.30 – 17.45	Grams, Christian: *The role of cloud diabatic processes in the life cycle of Atlantic-European weather regimes (**A1-011**)*	
13.15 – 13.45	Robson, Jon (Keynote): *On the mechanisms that give rise to predictability on Seasonal-to-decadal time-scales (**B1-01**)*	
13.45 – 14.00	Meehl, Gerald: *Initialized decadal prediction for transition to positive phase of the Interdecadal Pacific Oscillation and resumption of larger rates of global warming (**B1-02**)*	
14.00 – 14.15	Mochizuki, Takashi: *Tropical Atlantic impacts on subdecadal variability in the Pacific (**B1-03**)*	
14.15 – 14.30	Lee, June-Yi: *Multi-year predictability of total soil water, drought, and wildfire over the Globe (**B1-04**)*	
14.30 – 14.45	Anderson, Bruce: *The Pacific Decadal Precession: Our current understanding of its dynamics, regional climate effects, and predictability (**B1-05**)*	

14.45 – 16.15	***Coffee Break* and Poster Session 1**	
16.15 – 16.30	Delworth, Thomas: *Decadal variability and predictability in the Southern Ocean - implications for interpreting recent observed trends (**B1-06**)*	
16.30 – 16.45	Chapman, Christopher: *Variability and teleconnections in the Indian Ocean: Mechanisms, predictability and climatic influence (**B1-07**)*	
16.45 – 17.00	Cassou, Christophe: *Dynamical and thermodynamical impacts of the Atlantic Multidecadal Variability on the European climate (**B1-08**)*	
17:00 – 17.15	Nicolì, Dario: *Global Climate Impacts of the Atlantic Multidecadal Variability in CMCC-CM2-SR and CNRM-CM5 climate models (**B1-09**)*	
17.15 – 17.30	Ruprich-Robert, Yohan: *Impacts of the Atlantic Multidecadal Variability on the tropical climate and tropical cyclone activity (**B1-10**)*	
17.30 – 17.45	Patricola, Christina: *Oceanic and atmospheric sources of seasonal tropical cyclone predictability (**B1-11**)*	
18.00 – 22:00	**Reception – Location TBD**	
TUESDAY 18 SEPTEMBER		
8.30 – 17.45	**Parallel Sessions: Themes A and B**	
8.30 – 12.00	**S2S session Theme A2: Modelling issues in S2S prediction** North and Center CG	**S2D session Theme B1 (cont.)/B2 Modelling issues in S2D prediction** FL auditorium (streaming South CG)
8.30 – 9.00	Takaya, Yuhei (Keynote): *The art and science in sub-seasonal forecast system design (**A2-01**)*	
9.00 – 9.15	Buizza, Roberto: *Initialisation and model error simulation in the ECMWF coupled ensembles (**A2-02**)*	
9.15 – 9.30	Bhattacharjee, Partha: *Study of Sub-Seasonal Predictability using the Unified Forecast System at NCEP (**A2-03**)*	
9.30 – 9.45	Sardeshmukh, Prashant: *Sufficient resolution for S2S predictions (**A2-04**)*	
9.45 – 10.00	Hong, Song-You: *Seasonal prediction experiments in a global coupled system based on a non-hydrostatic global atmospheric model (**A2-05**)*	
10.00 – 10.30	***Coffee Break***	
10.30 – 10.45	Benjamin, Stan: *Toward reducing cloud-radiation errors from Day 1 to Week 4 Prediction (**A2-06**)*	
10.45 – 11.00	Kim, Daeyun: *Mean state bias, cloud-radiation feedbacks, and MJO prediction skill in the S2S models (**A2-07**)*	
11.00 – 11.15	Kim, Hyemi: *Process-based MJO hindcast evaluation in SubX (**A2-08**)*	

11.15 – 11.30	DeMott, Charlotte: *The ocean-atmosphere dialog in the MJO: Physical processes vs. systematic biases in forecast models (**A2-09**)*	
11.30– 12.00	Ferranti, Laura (Keynote): *How far in advance can we predict changes in large-scale flow leading to severe cold conditions over Europe? (**A3-01**)*	
8.30– 8.45	Maroon, Elizabeth: *Sources of skill in decadal predictions of Sahel precipitation (**B1-12**)*	
8.45 – 9.00	Dewes, Candida: *Projected Changes in S2D Hydroclimate Predictability in North America in CESM-LE (**B1-13**)*	
9:00 – 9.15	Curry, Judith: *ENSO: towards breaching the springtime predictability barrier (**B1-14**)*	
9.15 – 9.30	Alessandri, Andrea: *Multi‑scale enhancement of climate prediction over land by increasing the model sensitivity to vegetation variability (**B1-15**)*	
9.30 – 9.45	Ardilouze, Constantin: *Investigating the impact of soil moisture on European summer climate predictions (**B1-16**)*	
9.45 – 10.00	Beverley, Jonathan: *The northern hemisphere circumglobal teleconnection in a seasonal forecast model and its relationship to European summer forecast skill (**B1-17**)*	
10.00 – 10.30	***Coffee Break***	
10.30 – 11.00	Mueller, Wolfgang (Keynote): *Demands on the MPI Earth System Model to perform seasonal-to-decadal climate predictions (**B2-01**)*	
11.00 – 11.15	Keenlyside, Noel: *Approaches to reduce model biases to improve in climate prediction (**B2-02**)*	
11.15 – 11.30	Siongco, Angela Cheska: *Diagnosing the sources of systematic SST biases in CESM using ensemble seasonal hindcasts (**B2-03**)*	
11.30 – 11.45	Molteni, Franco: *Estimating errors in model variability: a comparison between seasonal re-forecasts and continuous multi-decadal simulations with the ECMWF coupled model (**B2-04**)*	
11.45 – 12.00	Barrie, Daniel: *Process-Oriented Model Diagnosis to Improve Modeling Systems (**B2-05**)*	
12.00 – 13.15	***Lunch***	
13.15 – 17.45	**S2S session Theme A3** **S2S ensemble predictions and forecast information** North and Center CG	**S2D session Theme B2 (cont.)/B3** **S2D ensemble predictions and forecast information** FL auditorium (streaming South CG)
13.15 – 13.30	Coelho, Caio*: A verification framework for South American sub-seasonal precipitation predictions (**A3-02**)*	
13:30 - 13:45	Munoz, Angel G: *How much can Model Output Statistics improve sub-seasonal predictive skill? (**A3-03**)*	
13.45 – 14.00	Berner, Judith: *Regime-dependent predictability and forecast error spectra of initialized forecasts (**A3-04**)*	
14.00 – 14.15	Barnes, Elizabeth: *Advancing atmospheric river and blocking forecasts into subseasonal-to-seasonal timescales (**A3-05**)*	

14.15 – 14.30	Collins, Dan: *Identifying the capacity of dynamical models to forecast subseasonal extremes: Multi-model ensembles (**A3-06**)*
14.30 – 14.45	Pegion, Kathy: The Subseasonal Experiment (SubX) *(**A3-07**)*
14.45 – 16.15	**Coffee Break and Poster Session 2**
16.15 – 16.30	Yoo, Changhyun: *Subseasonal prediction of wintertime East Asian temperature based on atmospheric teleconnections (**A3-08**)*
16.30 – 16.45	Batté, Lauriane: *Forecasting springtime Sahelian heat waves at seasonal and sub-seasonal time scales (**A3-09**)*
16.45 – 17.00	Toma, Violeta: *Advances in operational sub seasonal prediction of heat and cold waves for U.S. cities (**A3-10**)*
17.00 – 17.15	**Plans for Phase 2 R2O and database**
17.15 – 17:45	**Discussion (30 min)**
13.15 – 13.30	Johnson, Stephanie: *SEAS5: The new ECMWF seasonal forecast system (**B2-06**)*
13.30 – 13.45	Fröhlich, Kristina: *The German Climate Forecast System GCFS2.0 (**B2-07**)*
13.45 – 14.00	Wang, Yiguo: *Development and current S2D prediction skill of the Norwegian Climate Prediction Model (**B2-08**)*
14.00 – 14.15	O'Reilly, Christopher: *The importance of stratospheric initial conditions on wintertime seasonal predictability in the Euro-Atlantic sector and implications for the signal-to-noise paradox (**B2-09**)*
14.15 – 14.30	Bethke, Ingo: *Subtropical North Atlantic preconditioning key to skillful subpolar gyre prediction (**B2-10**)*
14.30 – 14.45	Kadow, Christopher: *Can decadal climate predictions be improved by ocean ensemble dispersion filtering? Any impact on seasonal predictions? (**B2-11**)*
14.45 – 16.15	***Coffee Break*** **and Poster Session 2**
16.15 – 16.30	Polkova, Iuliia: *Climate-mode initialization for decadal predictions (**B2-12**)*
16.30 – 16.45	Kitsios, Vassili: *Application of normal mode functions for the improved balance in the CAFE data assimilation system and characterisation of modes of variability (**B2-13**)*
16.45 – 17:15	Yeager, Steve (Keynote): *Near-term hydroclimate outlooks based on the CESM Decadal Prediction Large Ensemble (**B3-01**)*
17.15 – 17.30	Deser, Clara: *How early could the current La Niña have been predicted? (**B3-02**)*
17.30 – 17.45	Luo, Jing-Jia: *Multi-year ENSO prediction (**B3-03**)*

WEDNESDAY 19 SEPTEMBER		
8.30 – 17:45	**Parallel Sessions: Themes A and B**	
8.30 – 10.00	**S2S session: Theme A4** **S2S forecasts for decision making** North and Center CG	**S2D Session: Theme B3 (cont.)/B4** **S2D forecasts for decision making** FL auditorium (streaming South CG)
8.30 – 9.00	White, Chris (Keynote): *Applications of sub-seasonal to seasonal (S2S) predictions (**A4-01**)*	
9.00 – 9.15	Baker, Sarah: *Developing new watershed-based climate forecast products for hydrologists and water managers (**A4-02**)*	
9.15 – 9.30	Bazile, Rachel: *Improving the predictability of streamflow for hydropower production in Canada using S2S ensemble meteorological forecasts (**A4-03**)*	
9.30 – 9.45	Waliser, Duane: *Experimental sub-seasonal forecasting of atmospheric river variations for the western U.S. during Winters 2017-2018 and 2018-2019 (**A4-04**)*	
9.45 – 10.00	Büeler, Dominik: *Stratospheric influences on European month-ahead wind power generation and its predictability on subseasonal time scales (**A4-05**)*	
10.00 – 10.30	***Coffee Break***	
10.30 – 10.45	Hudson, Debbie: *Forewarned is forearmed: equipping farmers to proactively manage extreme climate events (**A4-06**)*	
10.45 – 11.00	Vintzileos, Augustin: *Excessive heat events and health: Building resilience based on global scale subseasonal-to-seasonal excessive heat outlook systems (**A4-07**)*	
11.00 – 11.15	Ndiaye, Ousmane: *Predictability of Senegalese sub-seasonal rainfall characteristics using SubX S2S data (**A4-08**)*	
11.15 – 11.30	**Plans for S2S Phase 2 Applications**	
11.30 – 12.00	**Discussion (30 min) Application in S2S Phase 2**	
8.30 – 8.45	Smith, Doug: *How skilful are decadal climate predictions? (**B3-04**)*	
8.45 – 9.00	Grieger, Jens: *Evaluation of re-calibrated decadal hindcast using a common verification framework (**B3-05**)*	
9.00 – 9.15	Squire, Dougal: *Skill assessment of the CSIRO multi-year Climate Analysis Forecast Ensemble system (**B3-06**)*	
9.15 – 9.30	Becker, Emily: *Prediction of short-term climate extremes using the North American Multi-Model Ensemble (**B3-07**)*	
9.30 – 9.45	Osman, Marisol: *Calibration and Combination of NMME precipitation forecast over South America using Ensemble Regression (**B3-08**)*	

9.45 – 10.00	Acharya, Nachiketa: *Evaluating a new calibration method for Seasonal Probabilistic Prediction for Indian Summer Monsoon (**B3-09**)*	
10.00 – 10.30	***Coffee Break***	
10.30 – 10.45	Dobrynin, Mikhail: *Potential of combined statistical-dynamical sub-sampling approach (**B3-10**)*	
10.45 – 11.00	Shin, Sang-Ik: *Room for Improvement in Seasonal-to-Decadal Climate Prediction (**B3-11**)*	
11.00 – 11.30	Tommasi, Desiree (Keynote): *Climate Predictions for Fisheries Applications **(B4-01)***	
11.30 – 11.45	Tourigny, Etienne: *Application of operational seasonal prediction systems for seasonal prediction of fire danger: a case study of the extreme wildfire events in California, Spain and Portugal of 2017 **(B4-02)***	
11.45 – 12.00	Hoell, Andrew: *Using Subseasonal to Seasonal Forecast Guidance to Support Famine Early Warning Systems Network International Food Security Assessments **(B4-03)***	
12.00 – 13.15	***Lunch***	
13.15 – 14.45	**S2S session A7/A8: Stratosphere/Chemistry** North and Center CG	**S2D session B4 (cont.)/B5: Hindcast and forecast quality assessment** FL auditorium (streaming South CG)
13.15 – 13.45	Pawson, Steven (Keynote): *Impacts of NASA's Earth Observations on subseasonal and seasonal forecasts* (**A7-01**)	
13.45 – 14.15	Butler, Amy (Keynote): *The role of the stratosphere in sub-seasonal to seasonal predictability* (**A8-01**)	
14.15 – 14.30	Alexander, M Joan: *Effect of Sudden Stratospheric Warmings on Subseasonal Prediction Skill in the NASA S2S Forecast System* (**A8-02**)	
14.30 – 14.45	Karpechko, Alexander: *Predictability of Sudden Stratospheric Warmings in sub-seasonal forecast models* (**A8-03**)	
14.45 – 16.15	***Coffee Break* and Poster Session 3**	
16.15 – 16.30	Domeisen, Daniela: *The role of stratosphere - troposphere coupling in sub-seasonal to seasonal prediction using the S2S database* (**A8-04**)	
16.30 – 16.45	Charlton-Perez, Andrew: *A signal and noise analysis of stratosphere-troposphere coupling in the S2S models* (**A8-05**)	
16.45 – 17.45	Discussion (1 hr)	
13.15 – 13.30	Kapnick, Sarah: *8-Month Snowpack Prediction Potential **(B4-04)***	
13.30– 13.45	Lehner, Flavio: *Harnessing NMME predictions to support seasonal hydrologic prediction **(B4-05)***	
13.45 – 14.00	Done, James: *UDECIDE: Understanding Decision-Climate Interactions on Decadal Scales **(B4-06)***	

14.00 – 14.15	Towler, Erin: *Incorporating decadal predictions into water management* ***(B4-07)***	
14.15 – 14.30	Vamborg, Freja S.E.**:** *Seasonal and decadal prediction services of the Copernicus Climate Change Service (C3S) - current status and plans for the future* ***(B4-08)***	
14.30 – 14.45	Kolstad, Erik: *Co-production of seasonal forecasts: experiences from Norway* ***(B4-09)***	
14.45– 16.15	***Coffee Break*** **and Poster Session 3**	
16.15 – 16.45	DelSole, Timothy (Keynote): *Recent Developments in Forecast Quality Assessment* ***(B5-01)***	
16.45 – 17.00	Volpi, Danila: *Robust evaluation of seasonal forecast quality using teleconnections* ***(B5-02)***	
17.00 – 17.15	Strommen, Kristian: *Signal and noise in regime systems: understanding NAO predictability* ***(B5-03)***	
17.15 – 17:30	Sospedra-Alfonso, Reinel: *Canonical skill analysis of tropical Pacific variability in the CCCma decadal hindcasts* ***(B5-04)***	
17.30 – 17.45	Düsterhus, André: *An advanced score for evaluating seasonal forecast skill* ***(B5-05)***	
THURSDAY 20 SEPTEMBER		
8.30 – 12.00	**Parallel Sessions: Themes A and B**	
8.30 – 10.00	**S2S Themes A5/A6** **Ocean and land Initialization and processes** North and Center CG	**S2D Theme B5 (cont.)/B6** **Frontiers in earth system prediction** FL auditorium (streaming South CG)
8.30 – 9.00	Dirmeyer, Paul (Keynote): *The Land Surface "Sweet Spot" Between Weather and Climate (****A5-01****)*	
9.00 – 9.30	Saravanan, Ramalingam (Keynote): *The role of the midlatitude ocean in sub-seasonal prediction (****A5-02****)*	
9.30 – 9.45	Davis, Philip: *An improved approach to land-surface initialization in the Met Office's Global Seasonal Forecasting System (GloSea) (****A5-03****)*	
9.45 – 10.00	Gudoshava, Masilin: *Improved Forecasts through land surface processes during the Rainy Seasons over East Africa (****A5-04****)*	
10.00 – 10.30	***Coffee Break***	
10.30 – 10.45	Subramanian, Aneesh: *Impact of ocean observation systems on ocean analyses and subseasonal forecasts (****A6-01****)*	
10.45 – 11.00	Zhang, Chidong: *Sea Ice and Filling Data Gaps for S2S Prediction (****A6-02****)*	
11.00 – 12.00	**Discussion (1hr, including impact of observing system)**	
8.30 – 8.45	Caron, Louis-Philippe: *How skillful are the multi-annual forecasts of Atlantic hurricane activity?* ***(B5-06)***	

8.45 – 9:00	Tietsche, Steffen: *Making sense of seasonal sea-ice forecasts* ***(B5-07)***
9.00 – 9.30	Li, Hongmei (Keynote): *Decadal predictability of the ocean carbon uptake variation* ***(B6-01)***
9.30 – 9.45	Ilyina, Tatiana: *Integration of carbon cycle components into ESM-based prediction systems* ***(B6-02)***
9.45 – 10.00	Park, Jong-yeon: *Seasonal to multi-annual marine biogeochemical prediction using GFDL's Earth System Model* ***(B6-03)***
10.00 – 10.30	***Coffee Break***
10.30 – 10.45	Lovenduski, Nicole: *A change in the forecast: Ocean biogeochemistry over the next decade* ***(B6-04)***
10.45 – 11.00	Long, Matthew: *Predicting ocean oxygen: capabilities and potential* ***(B6-05)***
11.00 – 11.15	Rodgers, Keith: *Application of Earth system modeling tools to explore predictability of marine ecosystem stressors* ***(B6-06)***
11.15 – 11.30	Bushuk, Mitch: *Regional Arctic sea-ice prediction: Potential versus operational seasonal forecast skill* ***(B6-07)***
11.30 – 11.45	Sigmond, Michael: *Skillful seasonal forecasts of Arctic sea ice retreat and advance dates in a dynamical forecast system* ***(B6-08)***
11.45 – 12.00	Imada, Yukiko: *ENSO prediction using an earth system model incorporating a high-resolution tropical ocean nesting model* ***(B6-09)***
12.00– 13.15	***Lunch***
13.15 – 17.45	**Common S2S/S2D Sessions – CG auditorium**
	Session C1 **Initialization, initialization shock, model errors**
13.15 – 13.45	Karspeck, Alicia (Keynote): *Climate Model initialization for near-term climate prediction: A survey of recent advances and anticipated trends (****C1-01****)*
13.45 – 14.00	Balmaseda, Magdalena: *Non-linear and non-stationary forecast errors: should we revisit the current forecast strategies? (****C1-02****)*
14.00 - 14.15	O'Kane, Terence: *Coupled data assimilation and ensemble initialization with application to multi-year ENSO prediction (****C1-03****)*
14.15 - 14.30	Kirtman, Ben: *Sub-seasonal to Decadal Predictability and Prediction with an Ocean Eddy Resolving Global Coupled Model (****C1-04****)*
	Session C2 **Research to operations**
14.30 - 14.45	Christensen, Hannah: *From reliable initialised forecasts to skilful climate projection: a dynamical systems approach (****C2-01****)*

14.45 – 16.15	***Coffee Break* and Poster Session 4**
16.15 - 16.45	Watkins, Andrew (Keynote): Title TBD *(**C2-02**)*
16.45 – 17.00	Reynolds, Carolyn: *US Navy's Earth System Prediction Capability Effort (**C2-03**)*
17.00 - 17.15	Crawford, Todd: *Transferring Science to practice: nearly two decades of seasonal forecasting for weather-sensitive industry (**C2-04**)*
	Session C3 **Time Scale interactions**
17.15 - 17.30	Koh, Tieh Yong: *Multi-scale interactions in a high-resolution tropical-belt experiment using WRP model (**C3-01**)*
17.30 - 17.45	Wang, Simon: *North America winter circulation regime change and implications on S2S/S2D (**C3-02**)*
FRIDAY 21 SEPTEMBER	
8.30 – 12.00	**Common S2S/S2D Sessions – CG auditorium**
8.30 – 9.00	Kimoto, Masahide (Keynote): *Predictability of blocking and tropical cyclone activities? An assessment with a large ensemble simulation (**C3-03**)*
9.00 – 9.15	Woollings, Tim: *Relating winter NAO skill to jet variability across timescales (**C3-04**)*
9.15 – 9.30	Weisheimer, Antje: *Seasonal Forecasts of the 20th Century: Multi-Decadal Variability in Predictive Skill of the Winter NAO (**C3-05**)*
9.30 – 9.45	Henderson, Stephanie: *The role of tropical-extratropical interactions on the optimal growth of Madden-Julian Oscillation events (**C3-06**)*
9.45 – 10.00	Karmakar, Nirupam: *Impact of intraseasonal oscillations on onset and demise of the Indian summer monsoon rainfall (**C3-07**)*
10.00 – 10.30	***Coffee Break***
10.30 – 12.00	**Wrap up discussions**