

**Lightning Modeling Workshop**  
**1-3 April 2024**  
**Marriott Uptown on Louisiana Blvd. in Albuquerque, NM.**

Start time	1 Apr	2 Apr	3 Apr
9:00		<b>Shorter topical talks</b> (15 min each)  X.-M. Shao (LANL): Lightning RF polarization from interferometry M. Hopkins (Sandia): Energetics of plasma discharge to materials	<b>Breakout summaries</b>  4 groups x 3 breakouts = 12 summaries, 5 min each (10 min per topic)
9:30		P. McFarland (PSU): Atmospheric chemistry and Lightning Discussion (10)	1 slide: summarize inputs, outputs; top 3 uncertainties Panel members will present (as session rapporteurs)
10:00		<b>Coffee Break</b> (10) K. Rasmussen (CSU): Uncertainties in thunderstorm modeling S. Wolff (USAF): Lightning optical scattering in clouds	<b>Plenary discussion</b>
10:30		P. Gatlin (NASA): Lightning Observing System Simulation  Discussion (10)	
11:00		<b>Introduce breakouts</b> Plan, purpose expected outcomes. (chair: Lang, Tilles) Summarize post-it (Goodman, Hogg) and survey data (Back)	<b>Adjourn</b>
11:30		<b>Group photo</b> <b>Lunch (Las Cruces Room)</b>	Panel-only wrap up discussion - next steps
12:00	<b>Registration</b> <i>All sessions except breakouts and lunch are in Salon GH</i>		
12:30	<b>Workshop welcome</b> (D. Gillich/Sandia), panel introduction <b>Vision for lightning modeling</b> (Bruning)  Overview of goals of modeling framework	<b>Breakouts</b>  1a, 1b: meteorology and cloud electrification <i>Plenary (GH) and Salon I</i>	2a, 2b: streamers, leaders, and relativistic processes <i>Salon J and ___</i>
1:00	Icebreaker (chair: Behnke)  <b>Short Break</b> (10)		
1:30	<b>Invited Talk</b> Mansell (uncertainties in meteorological electrification) (chair: Back, Lang)		
2:00	Discussion	<b>Short Break</b> <b>Breakouts</b> 3a, 3b: gross discharge structure and extent in storms <i>Plenary (GH) and Salon ___</i>	4a: discharge chemistry (NO <sub>x</sub> , HO <sub>x</sub> , etc.) — <i>Salon J</i> 4b: meteorological modeling <i>Salon I</i>
2:30	<b>Invited Talk</b> da Silva (Models of lightning leaders and the return stroke) (chair: Behnke, Goodman)		
3:00	Discussion		
3:30	<b>Activity: Survey, Post-it comments</b> <b>Breakout signup</b> <b>Coffee Break</b> (30)	<b>Coffee Break</b>	
4:00	<b>Invited Talk</b> Dwyer (relativistic and streamer/leader processes) (chair: Tilles, Hogg)	<b>Breakouts</b> 6a, 6b: lightning source emissions (RF, optical)	7a, 7b: lightning instrument emulation, forward modeling (RF, optical)
4:30	Discussion	<i>Salon I and ___</i>	<i>Plenary (GH) and Salon J</i>
5:00	<b>Invited Talk</b> Nag (RF and optical signals, observing systems) (chair: Bruning, et al.)		
5:30	Discussion	<b>Adjourn</b>	
6:00	<b>Adjourn</b>		
6:30	No-Host dinner - BJ's		