

**Emerging Methodologies for Paramagnetic NMR and Dynamic Nuclear Polarization in Biological and Inorganic Materials**

**Location: Telluride Intermediate School, 725 West Colorado Ave, Telluride, CO 81435**

**Breakfast available every day 7:30 - 9:00 am at the workshop site**

**Sunday- July 27, 2023**

17:00 - 18:30	All-Telluride Science Meet and Greet	Oak, 250 San Juan Avenue. (At the base of the Gondola). This is a good chance to meet up with fellow participants prior to your meeting. A staff member will be on hand to welcome you and distribute badges.
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**Monday- July 24, 2023**

7:00 - 9:30	Breakfast	
12:40 - 13:00	<b>Welcome (Marina Bennati, Ann McDermott, Tatyana Polenova)</b>	
	<b>Session 1 (Ivan Sergeev)</b>	
13:00 - 13:45	Bob Griffin	Time Domain DNP with Frequency Swept Pulses
13:45 - 14:30	Björn Corzilius	The Role of Methyl Dynamics in MAS DNP – From Relaxation to Site-Specific Transfer Pathways
14:30 - 15:15	Ann McDermott	Insights into Structure and Dynamics of Proteins from Low Temperature NMR Lineshapes
<b>15:15 - 15:45</b>	<b>Coffee break</b>	
	<b>Session 2 (Joanna Long)</b>	
15:45 - 16:30	Gunnar Jeschke	Microscopic Description of Nuclear-Spin Driven Electron Spin Coherence Loss in the Absence and Presence of Microwave Irradiation
16:30 - 17:15	Lyndon Emsley	New Polarisation Sources for DNP
17:15 - 18:00	Ivan Sergeev	Insights into Spatial Organization of Lipid Nanoparticle siRNA Delivery Systems from an Integrative DNP/MAS-NMR Approach

**Tuesday - July 25, 2023**

8:30 - 13:00	Free time	
	<b>Session 3 (Jennifer Mathies)</b>	
13:00 - 13:45	Angela Gronenborn	In-Cell Gd(III)- <sup>19</sup> F Distance Measurements in Proteins by NMR and EPR
13:45 - 14:30	Tatyana Polenova	<sup>19</sup> F MAS DNP of Protein Assemblies and Proteins in Cellular Environments
14:30 - 15:15	Yoh Matsuki	Methods and Instruments for High-Field MAS DNP Toward Intracellular Structural Biology
<b>15:15 - 15:30</b>	<b>Coffee break</b>	
	<b>Session 4 (Gunnar Jeschke)</b>	
15:30 - 16:15	Marina Bennati	EPR Spectroscopy at the Interface with NMR: High-Field ENDOR and DNP
16:15 - 17:00	Joanna Long	Optimizing DNP for Biological Samples
17:00 - 17:45	Hartmut Oschkinat	DNP of Proteins and Other Biomolecules

**Telluride Science Town Talk**

Location: Telluride Conference Center in Mountain Village

Talk Title: True Colors of Cancer

Featured Speaker: Stephen A. Boppart, M.D., Ph.D., University of Illinois at Urbana-Champaign

Cash Bar, Doors Open at 6:00pm

**18:30 - 19:30**

Wednesday - July 26, 2023		
8:30 - 13:00 Free time		
<b>Session 5 (Yoh Matsuki)</b>		
13:00 - 13:45	Thomas Prisner	New <sup>13</sup> C and <sup>1</sup> H DNP Results in Viscous Liquids at 9.4T and Room Temperature
13:45 - 14:30	Galia Debelouchina	Targeted DNP Approaches for Structural Biology in Complex Environments
14:30 - 15:15	Jennifer Mathies	Optimizing Polarization Transfer in Solids
15:15 - 15:30 Coffee break		
<b>Session 6 (Björn Corzilius)</b>		
15:30 - 16:15	Moreno Lelli	Biradicals for High-Field and High-Temperature DNP
16:15 - 17:30	Michal Leskes	Endogenous DNP Routes for Polarization Transfer Across Interfaces
<p style="text-align: center;"><b>All Telluride Science Picnic</b>            Free BBQ, Beer, Wine and Non-Alcoholic Beverages. Friends and Family are invited free of charge.            Location: Tent behind the Intermediate School  <i>(which is the location for all workshops - 725 W Colorado Ave)</i></p>		
Thursday - July 27, 2023		
8:30 - 13:45 Free time		
<b>Session 7 (Michal Leskes)</b>		
13:45 - 14:30	Tom Wenckenbach	Electron Spectral Diffusion and Nuclear Spin Diffusion Probed By Nuclear Dipolar Relaxation
14:30 - 15:15	Jim Kempf	DNP for 1.x GHz NMR, Standard-Bore Magnets & HFX Probes
15:15 - 16:00	Alexander Barnes	Towards Pulsed DNP at 100 Tesla
16:00 - 16:20 Coffee break		
16:20 - 17:30	Brainstorming session: All	Unsolved problems, future directions, and organizational issues (2025 meeting)
18:30 -	Dinner in self-organized groups, discussions	
Friday - July 28, 2023		
7:00 - 9:30 am Breakfast, informal discussions		