

**第二届“江门中微子实验相关的理论与唯象学”研讨会**  
**The 2<sup>nd</sup> CCAST workshop on the JUNO related  
 theory and phenomenology: Supernova Neutrinos**

**April 22-23, 2023, CCAST, Lecture Hall of the 5<sup>th</sup> Floor**

<b>April 22, 2023</b>		
线上会议室 ZOOM 会议号: 841-4698-8162 密码: 427256 ZOOM 链接: <a href="https://us06web.zoom.us/j/84146988162?pwd">https://us06web.zoom.us/j/84146988162?pwd</a>		
<b>Session 1</b>	<b>Experimental Overview</b>	<b>Chair: 周顺</b>
9:00 – 9:30	CCSN Observation with JUNO	Liang-Jian Wen 温良剑 (IHEP 高能所)
9:30 – 10:00	Discussions	
10:00 – 10:20	<i>Tea Break and Photos</i>	
<b>Session 2</b>	<b>Particle Physics</b>	<b>Chair: 廖玮</b>
10:20 – 10:50	Collective neutrino oscillations in supernovae -- recent developments	Meng-ru Wu 吴孟儒 <i>Online</i> (IOP, Academia Sinica)
10:50 – 11:20	Neutrino magnetic moment portal and supernovae	Ying-Ying Li 李英英 (USTC 中国科学技术大学)
11:20 – 12:00	Discussions	
12:00 – 14:00	<i>Lunch Break</i>	
<b>Session 3</b>	<b>Supernova physics</b>	<b>Chair: 徐仁新</b>
14:00 – 14:30	Supernova simulation and the hadron-quark phase transition	Shuai Zha 查帅 (TDLI&SJT 李政道研究所)
14:30 – 15:00	Neutrino opacity in hot and dense supernova matter	Gang Guo 郭刚 (CUG 中国地质大学)
15:00 – 15:30	Discussions	
15:30 – 15:50	<i>Tea Break</i>	
<b>Session 4</b>	<b>Neutron stars</b>	<b>Chair: 房栋梁</b>
15:50 – 16:20	Neutron star physics in the multi-messenger era	Sophia Han 韩君 (TDLI&SJTU 李政道研究所)
16:20 – 16:50	Impact of neutrinos on the post-merger signals of binary neutron star mergers	Enping Zhou 周恩平 (HUST 华中科技大学)
16:50 – 17:30	Discussions	
18:00-	<i>Dinner</i>	

**April 23, 2023**

线上会议室 ZOOM 会议号: 872-4884-4754 密码: 426279  
ZOOM 链接 <https://us06web.zoom.us/j/87248844754?pwd>

<b>Session 5</b>	<b>Neutrino Interactions</b>	<b>Chair: 温良剑</b>
9:00 – 9:30	Neutrino nucleus interaction requirements and experiences of JUNO	Jie Cheng 程捷 (NCEPU, 华北电力大学)
9:30 – 10:00	Discussions	
10:00 – 10:20	<i>Tea Break</i>	
<b>Session 6</b>	<b>Neutrino Interactions</b>	<b>Chair: 唐晓东</b>
10:20 – 10:50	Neutrino interaction cross sections from the charge exchange reactions	Bingshui Gao 高丙水 (IMP, 近物所)
10:50 – 11:20	Nuclear weak-interaction processes studied by nuclear structure theory	Yi-fei Niu 牛一斐 (LZU, 兰州大学)
11:20 – 12:00	Discussions	
12:00 – 14:00	<i>Lunch Break</i>	
<b>Session 7</b>	<b>Nucleosynthesis</b>	<b>Chair: 孟杰</b>
14:00 – 14:30	Constraining the neutrino mass hierarchy using supernova nucleosynthesis	Toshitaka Kajino 梶野敏贵 (BUAA 北航)
14:30 – 15:00	Neutrinos and Heavy Element Nucleosynthesis	Xi-lu Wang 王夕露 (IHEP 高能所)
15:00 – 15:30	Discussions	
15:30 – 15:50	<i>Tea Break</i>	
	<b>End of Workshop</b>	
18:00-	<i>Dinner</i>	