

**COST Action CA21128: "PROton BORon Nuclear fusion: from energy production to medical applicatiOns"**

**Working group meeting**

**Draft Agenda**

**28/04/2023 11:45**

**Face to face, Rethymno, Greece**

**Aquila Rithymna Beach Hotel, Rethymno, Greece**

**Session 1, Chair: Dimitri Batani**

11:45 – 12:15 Fabrizio Consoli, Laser-Initiated  $11\text{B}(p,\alpha)2\alpha$  fusion reactions in petawatt high-repetition-rates laser facilities

12:15 – 12:45 Lorenzo Giuffrida, Alpha particles generation using the secondary resonance of the proton-Boron fusion reaction triggered by a 10 GW tabletop laser

12:45 – 14:00 Lunch

**Session 2, Chair: Lorenzo Giuffrida**

14:00 – 14:30 Dieter Hoffmann, Recent Results on Proton-11Boron Reaction obtained in Accelerator and Laser-Plasma Experiments

14:30 – 15:00 Pablo Cirrone, INFN-LNS, Italy - The "FUSION" Italian project and I-LUCE facility: goals and perspectives, presented by Fabrizio Consoli

15:00 – 15:30 Ales Ruzicka, Cationic polyhedral heteroboranes; chemically stable targets for PBCT

15:30 – 16:00 Przemyslaw Tchorz, Novel approach to proton-boron fusion using protons generated through laser-induced thermonuclear DD reaction

16:00 – 16:15 Coffee Break

**Session 3, Chair: Daniele Margarone**

16:15 – 16:45 Andre Di Fini, Machine learning to optimize the laser-driven proton spectra in a pitcher-catcher proton-11B fusion reaction scheme

16:45 – 17:15 Chrysovalanti Daponta, Investigation of the released  $p\text{-}^{11}\text{B}$  fusion energy from proton beam interaction with  $^{11}\text{B}$  target

17:15 – 17:45 Reporting from PROBONO Group Leaders

17:45 – 19:00 General discussion