

# **Carbon Burning: Theory, Astrophysics and Experiments**

## **Report of Contributions**

Contribution ID: 2

Type: **not specified**

## **The role of the $^{12}\text{C}+^{12}\text{C}$ on the stellar evolution”**

*Tuesday 30 June 2026 09:00 (30 minutes)*

**Presenter:** Dr CHIEFFI, Alessandro (INAF - Rome)

**Session Classification:** Astrophysics I

Contribution ID: 3

Type: **not specified**

# Carbon burning and Type I a Supernova

*Tuesday 30 June 2026 09:30 (30 minutes)*

**Presenter:** PIERSANTI, Luciano (INAF - Rome)

**Session Classification:** Astrophysics I

Contribution ID: 4

Type: **not specified**

## **$^{12}\text{C}+^{12}\text{C}$ and $^{12}\text{C}+^{16}\text{O}$ reaction rates and stellar evolution**

*Tuesday 30 June 2026 10:00 (30 minutes)*

**Presenter:** Dr DUMONT, Thibaut (IPHC Strasbourg)

**Session Classification:** Astrophysics I

Contribution ID: 5

Type: **not specified**

## **Impact of $^{12}\text{C}+^{12}\text{C}$ on massive stars nucleosynthesis in general**

*Tuesday 30 June 2026 11:30 (30 minutes)*

**Presenter:** Dr ROBERTI, Lorenzo (INFN - LNS)

**Session Classification:** Astrophysics II

Contribution ID: 6

Type: **not specified**

## **Status of the 12C + 12C at CIRCE**

*Tuesday 30 June 2026 15:30 (30 minutes)*

**Presenter:** Prof. DI LEVA, Antonino (University and INFN of Naples)

**Session Classification:** Direct Measurements I

Contribution ID: 7

Type: **not specified**

## **Status of the 12C + 12C at LUNA**

*Tuesday 30 June 2026 15:00 (30 minutes)*

**Presenter:** Dr FORMICOLA, Alba (INFN Rome)

**Session Classification:** Direct Measurements I

Contribution ID: 8

Type: **not specified**

## **Status of the STELLA measurement of $^{12}\text{C}+^{12}\text{C}$**

*Tuesday 30 June 2026 16:30 (30 minutes)*

**Presenter:** Dr HEINE, Marcel (IPHC Strasbourg)

**Session Classification:** Direct Measurements II

Contribution ID: 9

Type: **not specified**

## **Status of the 12C + 12C at LEAF-TDL**

*Tuesday 30 June 2026 17:00 (30 minutes)*

**Presenter:** Prof. TANG, Xiaodong (Institute of Modern Physics Chinese Academy of Sciences)

**Session Classification:** Direct Measurements II

Contribution ID: **10**

Type: **not specified**

## **Trojan Horse Method for $^{12}\text{C} + ^{12}\text{C}$ reaction**

*Wednesday 1 July 2026 09:00 (30 minutes)*

**Presenter:** LA COGNATA, marco (infn-lns)

**Session Classification:** Indirect Measurements I

Contribution ID: 11

Type: **not specified**

## **Extending the Hoyle-state paradigm to $^{12}\text{C} + ^{12}\text{C}$ fusion**

*Wednesday 1 July 2026 09:30 (30 minutes)*

**Presenter:** Prof. JENKINS, David (University of York)

**Session Classification:** Indirect Measurements I

Contribution ID: 12

Type: **not specified**

## **Low-energy fusion hindrance in medium-light systems**

*Wednesday 1 July 2026 11:00 (30 minutes)*

**Presenter:** Prof. MONTAGNOLI, Giovanna (UNIPD)

**Session Classification:** Indirect Measurements II

Contribution ID: 13

Type: **not specified**

## **Modified Trojan Horse Method**

*Wednesday 1 July 2026 11:30 (30 minutes)*

**Presenter:** Prof. MUKHAMEDZHANOV, Akram (Texas A&M University)

**Session Classification:** Indirect Measurements II

Contribution ID: 14

Type: **not specified**

## **R-matrix for nuclear reactions**

*Wednesday 1 July 2026 16:30 (30 minutes)*

**Presenter:** Prof. SIMPSON, Edward (Australian National University)

**Session Classification:** Theory II

Contribution ID: 15

Type: **not specified**

## **R-matrix Study for the $^{12}\text{C} + ^{12}\text{C}$ Reaction**

*Wednesday 1 July 2026 17:00 (30 minutes)*

**Presenter:** Dr NURMUKHANBETOVA, Aliya (INFN LNS)

**Session Classification:** Theory II

Contribution ID: 16

Type: **not specified**

## **Screening effect in stellar environments**

*Thursday 2 July 2026 09:00 (30 minutes)*

**Presenter:** Prof. WU, Yuanbin (East China Normal University)

**Session Classification:** Miscellaneous I

Contribution ID: 17

Type: **not specified**

## **Impact of $^{12}\text{C}+^{12}\text{C}$ on massive stars nucleosynthesis of the elements heavier than iron**

*Thursday 2 July 2026 09:30 (30 minutes)*

**Presenter:** Dr PIGNATARI, Marco (Konkoly Observatory, Budapest, Hungary)

**Session Classification:** Miscellaneous I