Follow-up Meeting

Jorge Romero

Jyväskylän Yliopisto

5. huhtikuuta 2021

Dual Doctoral Programme

UNIVERSITY OF LIVERPOOL

JYVÄSKYLÄN YLIOPISTO
UNIVERSITY OF JYVÄSKYLÄ

Dual Doctoral Programme

UNIVERSITY OF LIVERPOOL

JYVÄSKYLÄN YLIOPISTO
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- Year 1: Oct 2019 - Sep 2020

Dual Doctoral Programme

UNIVERSITY OF LIVERPOOL

JYVÄSKYLÄN YLIOPISTO
UNIVERSITY OF JYVÄSKYLÄ

- Year 1: Oct 2019 - Sep 2020
- Year 2&3: Sep 2020 - Sep 2022

Dual Doctoral Programme

UNIVERSITY OF LIVERPOOL

JYVÄSKYLÄN YLIOPISTO
UNIVERSITY OF JYVÄSKYLÄ

- Year 1: Oct 2019 - Sep 2020
- Year 4: Oct 2022 - Sep 2023*

- Year 2&3: Sep 2020 - Sep 2022

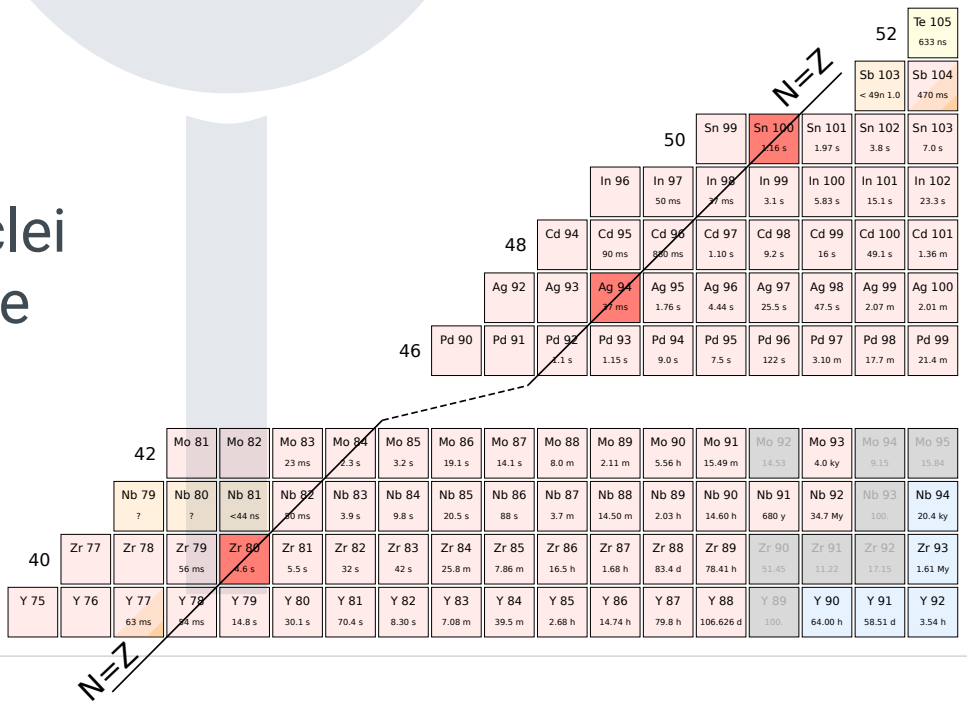
UNIVERSITY OF LIVERPOOL

JYVÄSKYLÄN YLIOPISTO
UNIVERSITY OF JYVÄSKYLÄ

- Year 1: Oct 2019 - Sep 2020
- Year 4: Oct 2022 - Sep 2023*
- Year 2&3: Sep 2020 - Sep 2022

Project

Investigation of exotic nuclei close to the proton drip line using the state-of-the-art MARA-LEB facility.



•Discipline-Specific Skills

Completed

5 cr	5	FYSS6320 **Vacuum Techniques**

JYVÄSKYLÄN YLIOPISTO

•Discipline-Specific Skills

Completed

5 cr	5	FYSS6320 **Vacuum Techniques**

Starting next year:

10 cr	FYSS3550 **Techniques for Nuclear and Accelerator-based Physics Experiments**
5 cr	FYSS3552 **Lasers and Traps in Nuclear Physics Studies**

•Discipline-Specific Skills

Completed

5 cr	5	FYSS6320 **Vacuum Techniques**

Starting next year:

10 cr	FYSS3550 **Techniques for Nuclear and Accelerator-based Physics Experiments**
5 cr	FYSS3552 **Lasers and Traps in Nuclear Physics Studies**

Starting next year:

4 cr	FYSS3470 **Introduction to nuclear models and interpretation of experimental data**

JYVÄSKYLÄN YLIOPISTO

•Discipline-Specific Skills

Completed

5 cr	5	FYSS6320 **Vacuum Techniques**

Starting next year:

10 cr	FYSS3550 **Techniques for Nuclear and Accelerator-based Physics Experiments**
5 cr	FYSS3552 **Lasers and Traps in Nuclear Physics Studies**

Starting next year:

4 cr	FYSS3470 **Introduction to nuclear models and interpretation of experimental data**

Physics Credit Total: 24/40 cr

JYVÄSKYLÄN YLIOPISTO

•Research Competence Courses

Compulsory course (completed):

2 cr	Pass	FYSJ9900 **Research ethics and open science**

Transferable Skills Courses

JYVÄSKYLÄN YLIOPISTO

•Research Competence Courses

Compulsory course (completed):

2 cr	Pass	FYSJ9900 **Research ethics and open science**

•Communication Skills Courses

5 cr	XSUX1001 **My Finnish**

Transferable Skills Courses

JYVÄSKYLÄN YLIOPISTO

•Research Competence Courses

Compulsory course (completed):

2 cr	Pass	FYSJ9900 **Research ethics and open science**

•Communication Skills Courses

5 cr	XSUX1001 **My Finnish**

•Other Competence

0-10 cr	FYSJ9950 **Practical Research and Project Work**
0-10 cr	FYSJ9920 **Scientific Conferences and Schools**

Transferable Skills Courses

JYVÄSKYLÄN YLIOPISTO

•Research Competence Courses

Compulsory course (completed):

2 cr	Pass	FYSJ9900 **Research ethics and open science**

•Communication Skills Courses

5 cr	XSUX1001 **My Finnish**

•Other Competence

0-10 cr	FYSJ9950 **Practical Research and Project Work**
0-10 cr	FYSJ9920 **Scientific Conferences and Schools**

Non-Physics Credit Total: Up to 27/40 cr

Experiment using MARA in November 2020.

Reactions of interest

$$^{40}\mathrm{Ca}(^{58,60}\mathrm{Ni}, p3n)^{94,96}\mathrm{Ag}$$

Experiment M17

JYVÄSKYLÄN YLIOPISTO

Experiment using MARA in November 2020.

Reactions of interest

$$^{40}\mathrm{Ca}(^{58,60}\mathrm{Ni}, p3n)^{94,96}\mathrm{Ag}$$

$\Rightarrow$ Closer Analysis in progress to obtain information on Ag (Interest for MARA-LEB).

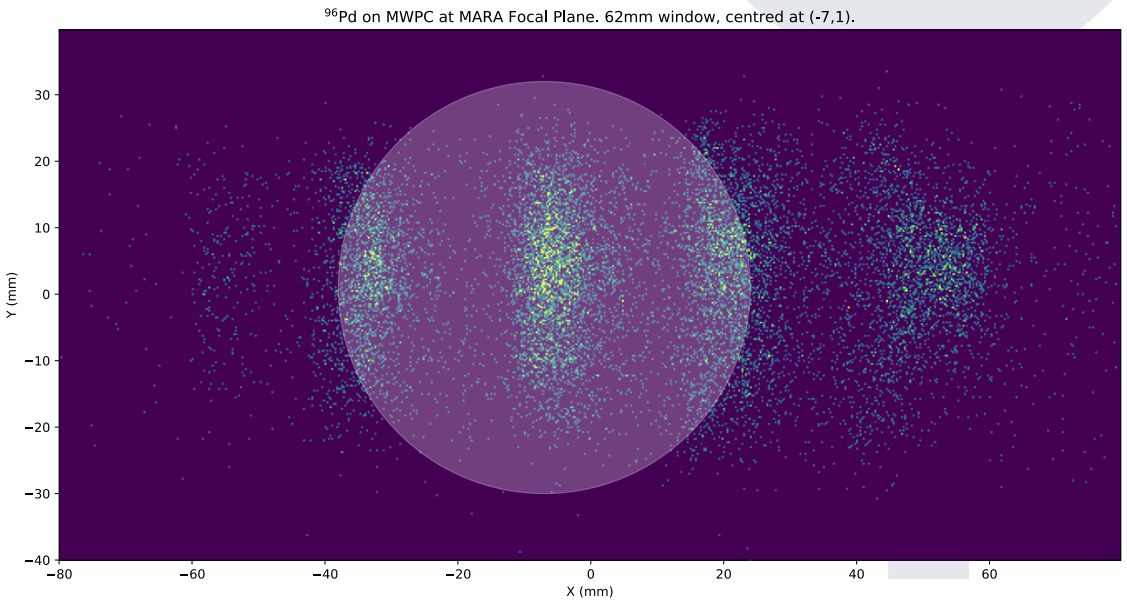
Experiment using MARA in November 2020.

Reactions of interest

$$^{40}\mathrm{Ca}(^{58,60}\mathrm{Ni}, p3n)^{94,96}\mathrm{Ag}$$

⇒ Closer Analysis in progress to obtain information on Ag (Interest for MARA-LEB).

⇒ Analysis of A=96 recoils distribution at MARA focal plane performed to study transmission into MARA-LEB gas cell as a function of window size.



Experiment M17

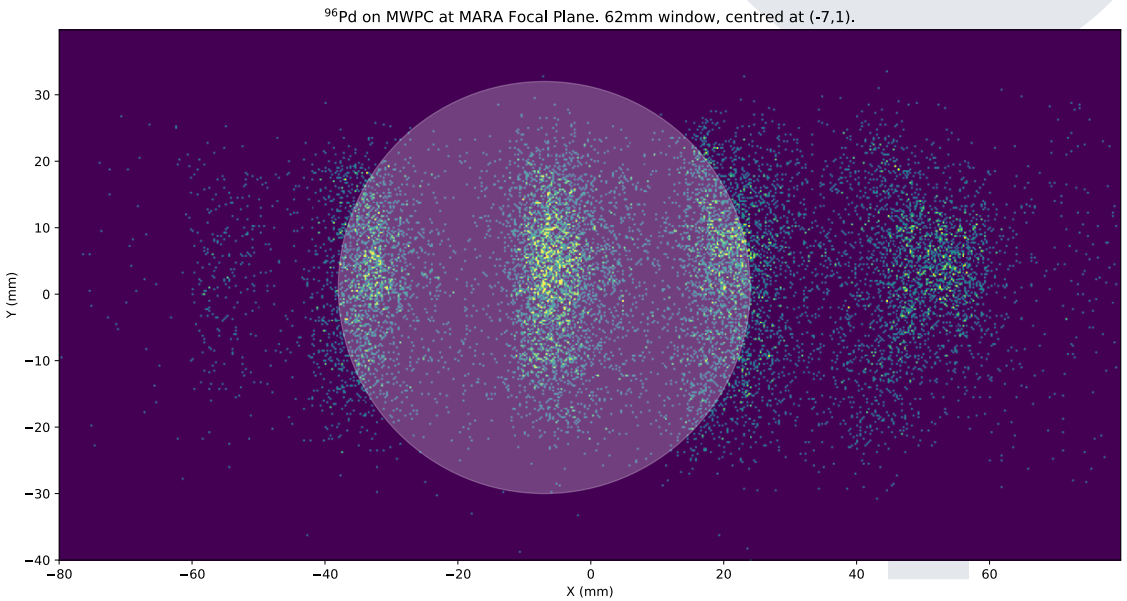
Experiment using MARA in November 2020.

Reactions of interest

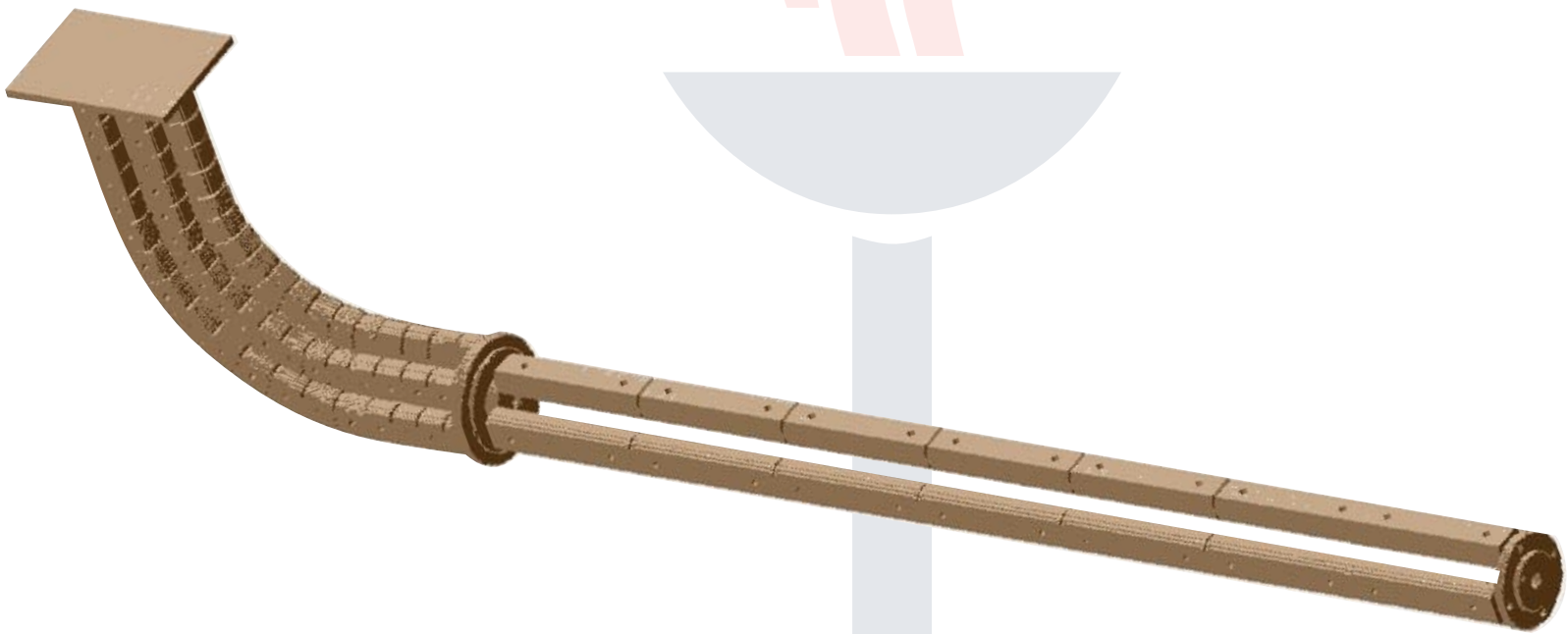
$$^{40}\mathrm{Ca}(^{58,60}\mathrm{Ni}, p3n)^{94,96}\mathrm{Ag}$$

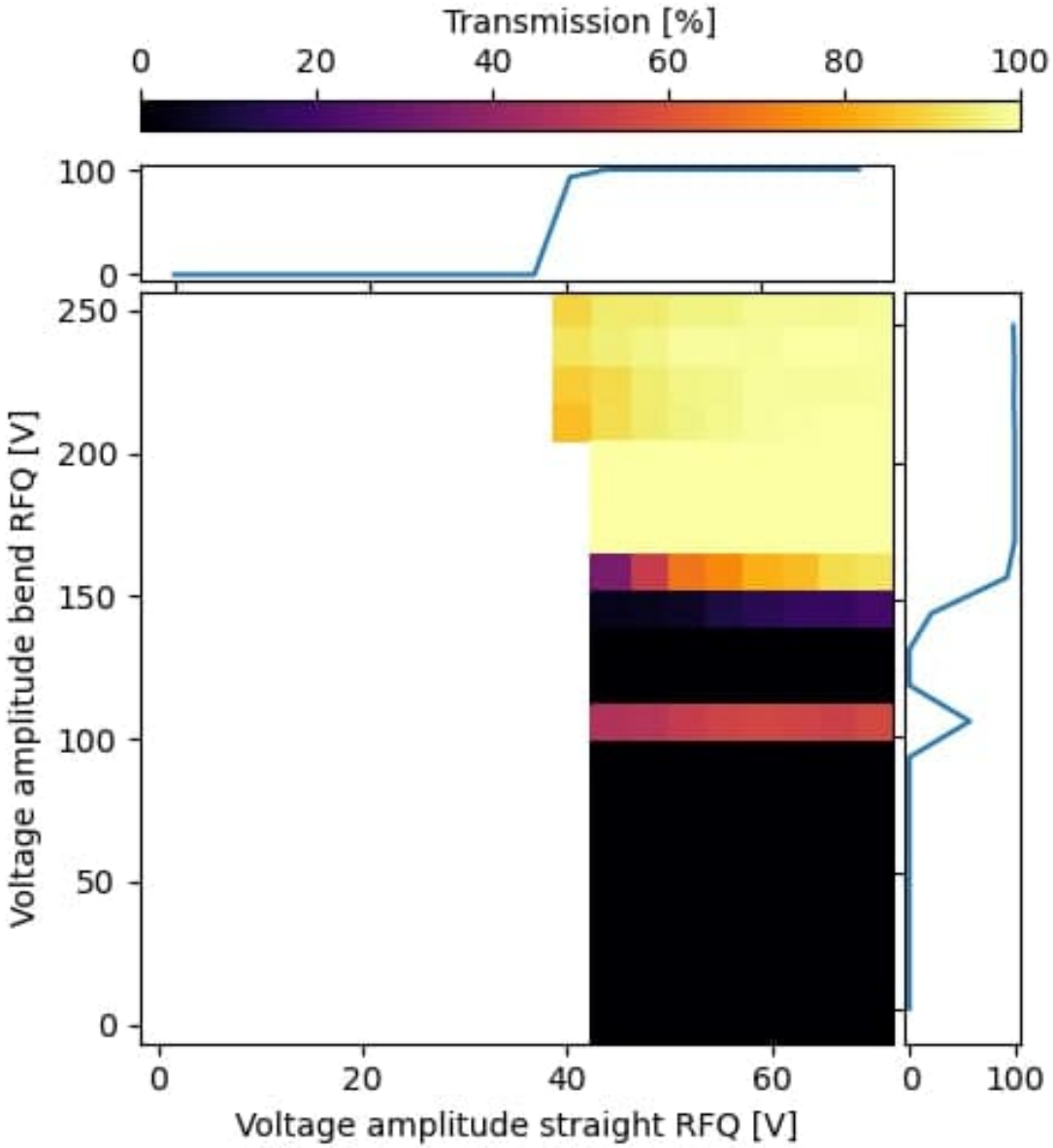
⇒ Closer Analysis in progress to obtain information on Ag (Interest for MARA-LEB).

⇒ Analysis of A=96 recoils distribution at MARA focal plane performed to study transmission into MARA-LEB gas cell as a function of window size. ⇒ **Shown within poster for Physics Days 2021**.



Performing simulations using Simion to study transmission rates through the MARA-LEB RFQs for different parameters. Working together with Wouter Gins.




Transmission [%]
0
20
40
60
80
100
100
0
250
200
150
100
50
0
Voltage amplitude bend RFQ [V]
0
20
40
60
0
100
Voltage amplitude straight RFQ [V]