The origin of the chemical elements

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Summary: How were the heavy chemical elements made is one of the big unanswered questions of physics. We know that they were produced in nuclear reactions involving explosive astrophysical scenarios. However, the details are not understood as these requires the understanding of the properties of exotic nuclei which were never synthetised on Earth.

The course will start with a short introduction on nuclear structure and nuclear reactions. It will be followed by the description of the processes synthetising the chemical elements, from fusion processes up to neutron induced ones. A large part will be dedicated to experimental techniques employed to measure the properties of the most neutron-rich nuclei at the last generation radioactive beam facilities.

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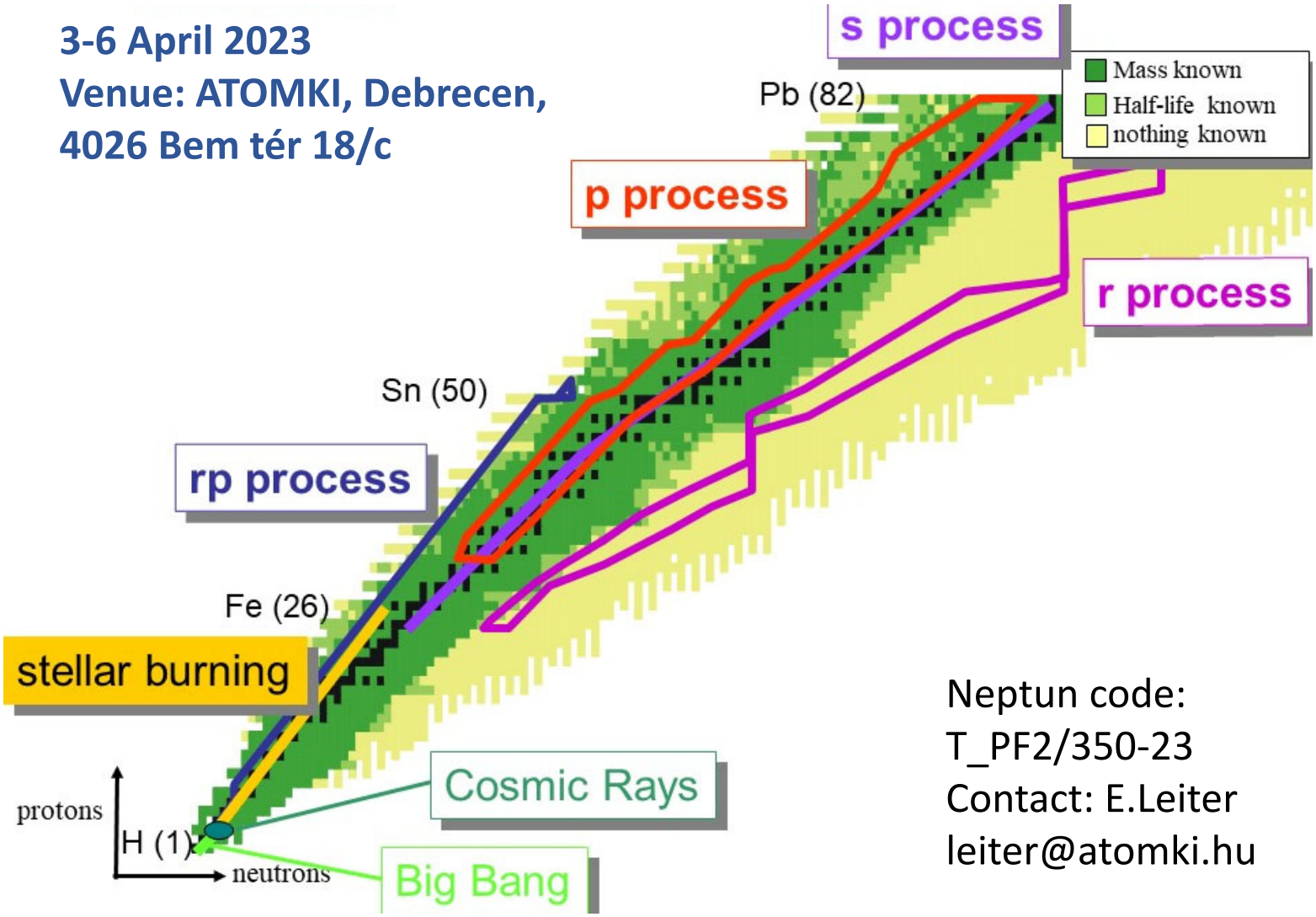
Venue: ATOMKI, Debrecen, 4026 Bem tér 18/c



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