



Contribution ID: 304

Type: **Invited talk**

Magnetic flux emergence and the solar dynamo

Monday, 6 September 2021 09:05 (20 minutes)

In global dynamo models, the process of magnetic flux emergence through the stellar convection zone is thought to be crucial. In the Sun, it is the strong toroidal structures built at the base of the convection zone which are assumed to be unstable to a buoyancy instability and rise through the convection zone to produce sunspots. The details of how these buoyant structures are formed, evolve and interact inside the convection zone and emerge at the photosphere and beyond are still a matter of active research. Moreover, the ability of these emergence processes to take part into the whole dynamo process is also a matter of intense debate in the solar dynamo community.

We propose in this talk to review some aspects of magnetic flux emergence in the Sun and to connect those studies with the global picture of the solar dynamo mechanism.

Student poster?

Do you want to be considered for a student poster prize?

Primary author: JOUVE, Laurene (IRAP Toulouse / France)

Presenter: JOUVE, Laurene (IRAP Toulouse / France)

Session Classification: Plenary 1

Track Classification: Session 1 - Solar Interior, Dynamo, Large-Scale Flows and the Solar Cycle