



Stellar winds and their effects on exoplanets (No 1682)

📅 03.07.2020 ⌚ 11:30 - 12:00 🗨️ Plenary talk
🔗 Friday Plenary

[Aline Vidotto](#)¹

¹ Trinity College, University Of Dublin

As the wind outflows from a star, it permeates the interplanetary medium, interacting with any planet it encounters. In this talk I will review some recent works on winds of low-mass stars and discuss the impact stellar winds can have on surrounding exoplanets. Compared to the physical interactions known to take place between the solar wind and the solar system planets, the interaction between stellar winds and exoplanets can be significantly stronger. This happens due to two main reasons: (1) the differences in the Physical properties of the host stars, such as magnetism, age and rotation, compared to the properties of our Sun; and (2) the extreme architecture of most of the known exoplanetary systems, with planets in significantly closer orbital distances, compared to solar system planets. Due to the strong nature of these interactions, they can generate observable signatures, thus providing other avenues for characterising exoplanetary systems, which would otherwise remain unknown.