Geophysical Research Abstracts Vol. 21, EGU2019-10529, 2019 EGU General Assembly 2019 © Author(s) 2019. CC Attribution 4.0 license.



What we know and don't know about coronal mass ejections – The answer is blowing in my presentation

Volker Bothmer

University Göttingen, Institute for Astrophysics, Göttingen, Germany (bothmer@astro.physik.uni-goettingen.de)

In the same year the first interplanetary shock waves were discovered in the solar wind through in-situ measurements the famous song "Blowing in the Wind" was released by Bob Dylan. From that time on more and more advanced space observations of the Sun and the interplanetary medium have provided fundamental insights into the physics of coronal mass ejections (CMEs) and their heliospheric evolution. I will review our current understanding of CMEs, which is of extreme importance today to help facilitate reliable space weather predictions in the near future. I will also point out challenging remaining questions that need to be answered by future investigations. My historical walkthrough of key CME research will be presented from the watchtower of a space scientist in the context of Dylan's famous lyrics since we know "the times they are a-changin".