

## **Altermagnetism from first principles**

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Antiferromagnetism (AFM) is one of the most common types of magnetic ordering. AFM states have zero macroscopic magnetization due to cancellation of individual moments in the unit cell. The electronic bands of many antiferromagnets are doubly degenerate if spin-orbit coupling is neglected. However, this requires the presence of a particular symmetry operation. Recently, it has been recognized that there is a type of antiferromagnetism, called altermagnetism, in which the bands at a general  $k$  point are spin split even when spin-orbit coupling is neglected. In this poster, I will explain what altermagnetism is, and the symmetry criterion for a particular system to be altermagnetic. I will present representative examples including results from my current work on altermagnetism.