OB associations: new insights from large scale surveys

César Briceño

Centro de Investigaciones de Astronomía (CIDA), Mérida, Venezuela

OB associations are the prime sites for star formation in our Galaxy. The low-mass ($0.1 \lesssim M \lesssim 1$ $M_\odot$) stellar populations in these regions provide a snapshot of the fossil star-formation record of giant molecular cloud complexes. Large scale surveys have identified hundreds of members of nearby OB associations, and revealed that low-mass stars exist wherever high-mass stars have recently formed. The overall properties of these populations, such as their spatial distribution, their ages, the Initial Mass Function (IMF), and circumstellar disks, are key to investigating questions like how long do the gas clouds in molecular complexes within our Galaxy last, how fast do stars (and therefore planetary systems) form, and whether stars follow an "universal" IMF.

I will discuss how recent and ongoing large scale surveys, both in the optical and infrared, are offering exciting new insights into these issues.