EP 14 Astrophysik: Die lokale Blase

Zeit: Mittwoch 15:30–16:00 Raum: B

Hauptvortrag EP 14.1 Mi 15:30 B

Kinematik der sonnennahen Sterne: wie ist die Lokale Blase entstanden? — •Burkhard Fuchs — Astronomisches Rechen-Institut, Moenchhofstr. 12-14, 69120 Heidelberg

We present a new unbiased search and analysis of all B stars in the solar neighbourhood (within a volume of 400 pc diameter) using the Arivel data base to track down the remains of the OB associations, which hosted the supernovae responsible for the Local Bubble in the interstellar gas. Like previous authors we find that the Upper Scorpius, Upper Centaurus Lupus, and Lower Centaurus Crux subgroups are the youngest stellar associations in the solar neighbourhood with ages of 20 to 30 Myrs. We have traced the paths of the associations back into the past and found that they entered the region occupied now by the local bubble 10 to 15 Myrs ago. We argue that the local bubble began to form since then and estimate that 12 to 17 supernovae originated from the association. We show that the implied energy input is sufficient to excavate a bubble of the size as observed today, and that the results are in excellent agreement with OVI absorption line data.