

DIVISION IX / COMMISSION 30 / WORKING GROUP SB9 - Spectroscopic Binary Systems

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1. Introduction

In Manchester, a WG was set up to work on the implementation of the 9th catalogue of orbits of spectroscopic binaries (SB9), superseding the 8th release of Batten *et al.* (1989) (SB8). SB9 exists in electronic format only. The web site <http://sb9.astro.ulb.ac.be> was officially released during Summer 2001. This site is directly accessible from the Commission 26 web site, from BDB (in Besancon) and from the CDS (at least).

2. Developments within the past triennium

Since the last report, some substantial progress have been accomplished, in particular in the way complex systems can be uploaded together with their radial velocities. The way data weights can be supplied has also been improved.

For the time being, SB9 contains 3039 systems (1469 in SB8) and 3784 orbits (1469 in SB8). A total of 623 papers were added since August 2000 but most of them come from OUTSIDE the WG. We still have a lot of papers with orbits which are waiting for being uploaded. According to ADS, the replease paper (Pourbaix *et al.* 2004, A&A) has been cited by 152 references since 2005. This is only three times more than the old Batten *et al.* paper over the same period even though that one is still cited nowadays.

An important work of cross checking the identification of systems is carried out by the CDS (Strasbourg). Indeed, with the SBC9 identifier added to Simbad, each new release of the SB9 tar ball is cross checked for typos prior to integration at the CDS. Whereas some of these mistakes are ours, some authors share the responsibility as well. Users have also helped pinning down some problems.

Although this work is very welcome by the community (about 500-1000 successful queries every month, with 50 distinct IP addresses over the past month) and some tools have been designed to make the job of entering new orbits easier (input file checker, plot generator, ...), the WG still suffers from a serious lack of manpower. Few colleagues

outside the WG spontaneously send their orbits (but they are usually pleased to send their data when we ask for them). Any help (from authors, journal editors, ...) is therefore very welcome. Uploading an orbit in SB9 also means checking it against typos. We thus found some mistakes in the published solutions. Sending orbits to SB9 prior to publication (e.g. at the proof stage) would therefore be a way to prevent some mistakes from going to the literature.