

## **Planck intermediate results. XXVI. Optical identification and redshifts of Planck clusters with the RTT150 telescope**

Ade P., Aghanim N., Arnaud M., Ashdown M., Aumont J., Baccigalupi C., Banday A., Barreiro R., Barrena R., Bartolo N., Battaner E., Benabed K., Benoit-Lévy A., Bernard J., Bersanelli M., Bielewicz P., Bikmaev I., Böhringer H., Bonaldi A., Bonavera L., Bond J., Borrill J., Bouchet F., Burenin R., Burigana C., Butler R., Calabrese E., Carvalho P., Catalano A., Chamballu A., Chiang H., Chon G., Christensen P., Churazov E., Clements D., Colombo L., Comis B., Couchot F., Curto A., Cuttaia F., Dahle H., Danese L., Davies R., Davis R., De Bernardis P., De Rosa A., De Zotti G., Delabrouille J., Diego J., Dole H., Doré O., Douspis M., Ducout A., Dupac X., Efstathiou G., Elsner F., Enßlin T., Eriksen H., Finelli F., Flores-Cacho I., Forni O., Frailis M., Fraisse A., Franceschi E., Frejsel A.

*Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia*

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### **Abstract**

© ESO, 2015. We present the results of approximately three years of observations of Planck Sunyaev-Zeldovich (SZ) sources with the Russian-Turkish 1.5 m telescope (RTT150), as a part of the optical follow-up programme undertaken by the Planck collaboration. During this time period approximately 20% of all dark and grey clear time available at the telescope was devoted to observations of Planck objects. Some observations of distant clusters were also done at the 6 m Bolshoi Telescope Alt-azimutalnyi (BTA) of the Special Astrophysical Observatory of the Russian Academy of Sciences. In total, deep, direct images of more than one hundred fields were obtained in multiple filters. We identified 47 previously unknown galaxy clusters, 41 of which are included in the Planck catalogue of SZ sources. The redshifts of 65 Planck clusters were measured spectroscopically and 14 more were measured photometrically. We discuss the details of cluster optical identifications and redshift measurements. We also present new spectroscopic redshifts for 39 Planck clusters that were not included in the Planck SZ source catalogue and are published here for the first time.

<http://dx.doi.org/10.1051/0004-6361/201424674>

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### **Keywords**

Catalogs, Galaxies: clusters: general