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Survey of period variations of superhumps in SU UMa-type dwarf novae. X. The tenth year (2017)

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Abstract

© 2020 The Author(s) 2020. Published by Oxford University Press on behalf of the Astronomical Society of Japan. Continuing the project described by Kato et al. (2009, PASJ, 61, S395), we collected times of superhump maxima for 102 SU UMa-type dwarf novae observed mainly during the 2017 season, and characterized these objects. WZ Sge-type stars identified in this study are PT And, ASASSN-17ei, ASASSN-17el, ASASSN-17es, ASASSN-17fn, ASASSN-17fz, ASASSN-17hw, ASASSN-17kd, ASASSN-17la, PNV J20205397+2508145, and TCP J00332502-3518565. We obtained new mass ratios for seven objects using growing superhumps (stage A). ASASSN-17gf is an EI Psc-type object below the period minimum. CRTS J080941.3+171528 and DDE 51 are objects in the period gap, and both showed a long-lasting phase of stage A superhumps. We also summarize the recent advances in understanding of SU UMa-type and WZ Sge-type dwarf novae.

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Keywords

accretion, accretion disks, stars: dwarf novae, stars: novae, cataclysmic variables

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