

## DIVISION C / COMMISSION 3 / JOHANNES KEPLER WORKING GROUP

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### TRIENNIAL REPORT

The setting up of an IAU WG on the life and work of Johannes Kepler was proposed by participants at Special Session 9 of the XXVIIIth General Assembly of the IAU (11–14 August 2009, Rio de Janeiro; Mahoney 2010).

#### 1. Contacts with the Kepler-Kommission

From its inception, the Johannes Kepler Working Group (JKWG) has maintained close ties with the Kepler-Kommission (KK), which is hosted by the Bayerische Akademie der Wissenschaften (Munich). Its first, and most urgent, task was to examine the possibilities of the digitization and subsequent placing online of the KK's *Johannes Kepler: Gesamtelte Werke* (KGW; Kepler 1937–), which has for several decades been the standard primary source of Kepler's works for historians of astronomy. The JKWG engaged in long discussions with the KK regarding the complex issue of the copyright of the KGW and strenuously urged its digitization. The digitization was consequently carried out by the KK. Volumes I–XXI.II.II of the JKW are now freely available to scholars and the general public at [kepler.badw.de/das-projekt.html](http://kepler.badw.de/das-projekt.html). Volume XXII, edited by Kothmann & Schenkel (2017), has now been published and awaits being placed online.

#### 2. Focus Meeting proposal for the Vienna IAUGA

The Working Group presented a proposal for a Focus Meeting at this year's GA in Vienna to commemorate the 400th anniversary of the discovery of Kepler's Third Law. The proposed meeting bore the title *Kepler's Third Law: History and Scientific Legacy*. The aim of the meeting, apart from covering how Kepler actually discovered the Third Law, was to trace how Kepler's ideas on heavenly harmony gradually became transformed over time into current notions of gravitational resonances in Solar System and galactic dynamics. The proposal was turned down, but the JKWG is looking into the possibility of organizing a meeting on a similar theme for 2019, the 400th anniversary of the publication of *Harmonices Mundi*, in which the Third Law was first published (Kepler 1997).

#### 3. *Reading the Mind of God: Kepler and the Reformation of Astronomy*

An undergraduate history of astronomy textbook *Reading the Mind of God: Johannes Kepler and the Reformation of Astronomy* (Davis, Field & Mahoney, in prep.), was commissioned by Springer on behalf of the Royal Astronomical Society. The contributing

authors are renowned historians of astronomy specializing in Johannes Kepler and astronomers with a keen interest in Kepler's contributions to astronomy. The editorial work is now nearing completion and the MS will be submitted to Springer later this year. The book is closely associated with the work of the JKWG, and all the authors are JKWG members.

#### 4. JKWG website

The JKWG website<sup>†</sup> is hosted by the Instituto de Astrofísica de Canarias (Spain). The site contains detailed and accurate accounts of how the first two laws of planetary motion were discovered by Kepler (a description of the discovery of the Third Law is now being prepared). The site also contains a detailed timeline of Kepler's life and activities and links to important Kepler sites. The website is still being developed.

#### 5. Future tasks

Among the tasks that the JKWG has set itself,<sup>‡</sup> four are of particular importance:

- (a) The digitization of first and early editions of Kepler's works and associated material
- (b) Encouraging the publication of scholarly translations of Kepler's works into modern languages
- (c) The translation of Kepler's correspondence into English
- (d) Approaching the Russian Academy of Sciences to look into the feasibility of digitizing Kepler's manuscript collection.

It is surprising that much of Kepler's correspondence still remains to be translated into English, and that reliable translations of several of his major works have yet to be made. While the JKWG cannot carry out these tasks alone, it has shown that it is capable of serving as a useful central hub from which to coordinate efforts internationally.

Of particular importance is the subject of the digitization of Kepler's manuscripts. The KK has a superb collection of photostats of the MS collection owned by the Russian Academy of Sciences, but it is a matter of urgency to digitize the original MSS both as a safeguard and to protect the originals from too frequent handling. The JKWG's experience in negotiating with the KK regarding the digitization of the KGW revealed the full complexity of issues related to copyright ownership and availability of manpower to handle the digitization process. Obviously the collaboration of the Russian Academy of Sciences would be of the utmost importance, and the JKWG will make its first contacts with the Academy in the near future.

#### 6. Conclusion

It is the view of the JKWG membership and Kepler-related organizations associated with it (such as the KK) that the group has greatly contributed to the diffusion of knowledge about the life and work of Johannes Kepler, and that much still remains to be done in terms of organizing meetings on the multifarious contributions of Kepler to astronomy, optics, and mathematics. Being able to carry out these activities under the aegis of the IAU greatly contributes to the effectiveness of the JKWG in performing these tasks. The memberships of the JKWG therefore once again earnestly enjoins the IAU to continue to support its efforts in the way that it uniquely can.

<sup>†</sup> [www.iac.es/proyecto/johanneskepler/](http://www.iac.es/proyecto/johanneskepler/).

<sup>‡</sup> [www.iac.es/proyecto/johanneskepler/rationale.html](http://www.iac.es/proyecto/johanneskepler/rationale.html).

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*Chair of Working Group*

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