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Science not  
yet domiciled  
at the German  
universities  
during the  
eighteenth  
century.

The general impression we receive from a perusal of the histories of science and learning in Germany at the close of the eighteenth century is, that the university system had, so far as philosophical and classical studies were concerned, attained almost to the eminence which it has held during this century, but that it had not—with the exception perhaps of Göttingen—received into its pale the modern spirit of exact research, such as it had been developed by the great French Academicians. Eminent students of science lived outside of the universities, belonging wholly or largely to the international Republic which had its centre in Paris, exerting little influence on higher German education through the universities, and hardly any on German literature, which had meanwhile ripened into the age of Classicism. This scattered condition of German science gave it on the one side a character which was foreign to the general tendencies of German thought, since this had come under the excessive influence of the speculative spirit without that wholesome check which exact research has always exerted.<sup>1</sup>

Bradley in *specula astronomica Grenoviænsi per A. 1750-62 institutis* (1818). By his determination (1838-40) of the parallax of the star 61 Cygni he made the first accurate calculation of the distance of a fixed star, which he computed at 12 billion astronomical miles.

<sup>1</sup> It was the age of the *Naturphilosophie*, which, through the influence of Schelling in the south and Hegel in the north of Germany, filled the chairs in the universities, and penetrated into the learned societies. This philosophy of nature had the effect of frequently replacing induction by speculation, the patient work of

the calculator, the observer, the experimenter, and the dissector by general theories, such as, applied to literary, historical, and poetical subjects, had acquired a certain importance, and a semblance of veracity and usefulness. In France the whole spirit of the Academy of Sciences opposed this form of learning. Cuvier denounced it or regarded it with suspicion, in England it remained unknown, and in Germany itself individual great minds opposed it, or did their work outside of its influence. Such were notably A. von Humboldt and Gauss. Younger men, such as Liebig and Joh. Müller,