

Successful cooperation between science and industry:

Berner & Mattner provides Plasma Diagnostics System for Max Planck Institute

Munich, July 19, 2010 – Berner & Mattner Systemtechnik GmbH accomplished a unique Plasma Diagnostics System on behalf of the Max Planck Institute for Extraterrestrial Physics (MPE). Dynamic processes in complex plasma can be studied using the high resolution electro-optical device. Berner & Mattner was responsible for the integration of the entire system, from detailed components specification to selection, control and monitoring of adequate manufacturers and suppliers, through to implementation. This excellent cooperation allowed to effectively release resources at MPE regarding time, manpower and budget and to free capacity of the scientists for research tasks.

The Max Planck Institute for Extraterrestrial Physics and Berner & Mattner joined efforts to develop and build a new Plasma Diagnostics System with high resolution. The Theory Group at MPE studies highly coupled, complex plasma. For their research, scientists entrusted the experts at Berner & Mattner with the detailed specification, project coordination, components supply and integration of the measuring system.

High requirements and complexity

The MPE team successfully took advantage of the long-term experience of Berner & Mattner in the fields of project management, technical specification, integration and test as well as technical and commercial negotiations with suppliers of optical and electronic system components.

“We require highly complex, custom-built devices for our research. We can relieve our project teams from many tasks not linked to the research field by a successful cooperation with a specialist in the private sector, such as Berner & Mattner. We benefit from more efficiency and obtain time for the actual research”, corroborates Professor Gregor Morfill, Director at the MPE, the project success. “Providing the turnkey analytical system, the team of Berner & Mattner met our very special requirements in a reliable way.”



Plasma Diagnostics System

About the Max Planck Institute for Extraterrestrial Physics

The main research topics of the Max Planck Institute for Extraterrestrial Physics (MPE) are modern astrophysics and space plasma physics. For its research, the Institute applies mostly experimental, but also theoretical methods. Its name defines the research field – space physics – and, at the same time, the methodology. Many experiments of the MPE have to be carried out above the dense Earth's atmosphere using balloons, aircraft, rockets, satellites and space probes. Whenever possible, the MPE also uses instruments at earth-bound telescopes complementing the results with laboratory tests. Data-based analysis, study of fundamental physical processes, and the development of new methods are most relevant to the theoretical work. Some of the methods can be transferred to other research fields and applications. In this way, the Theory Group at the MPE transfers the results obtained from the analysis of complex systems to other application-oriented fields in medicine (early diagnostics of skin cancer, tumors, prenatal surveillance), engineering (manufacturing and quality control), and hygiene (plasma-based disinfection). To obtain more information about the Max Planck Institute for Extraterrestrial Physics, please visit www.mpe.mpg.de.

About Berner & Mattner

Berner and Mattner Systemtechnik GmbH is specialized in custom-made solutions for the specification, development and testing of complex electronic systems. Its competence spectrum ranges from consulting, conception, software and systems development to the setup and operation of entire test and integration systems.

On the basis of its products and services, Berner & Mattner provides customized software and engineering solutions for the automotive, aerospace, industrial automation, transportation, and defence industries. By means of its integrated model-based approach, Berner and Mattner optimizes its customers' efficiency and quality in software and systems development. This is why well-known companies such as Audi, BMW, Daimler, Deutsche Bahn, EADS Germany and Siemens have been placing their trust in Berner and Mattner for many years. The privately owned company, with headquarters in Munich, was founded in 1979, currently employs 270 people at 8 sites in Germany and Austria and has been named a "Bavaria's best 50 for 2009" company. Further information on Berner & Mattner: www.berner-mattner.com.

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