

*Technical Writing***EEG caps in a nutshell – New tutorial on how to select a suitable recording cap***by Katja Wust*

Our new cap tutorial is now available for downloading from the Brain Products website. The tutorial is an overview document designed to offer guidance to users in choosing the recording cap that best suits their purpose. It is intended for users who do not yet know which cap to pick as well as for those who simply wish to obtain information on a particular cap.

The tutorial discusses the following caps that are available from Brain Products GmbH: actiCAP, BrainCap Fast'nEasy, BrainCap MR, EasyCap, EasyCap active, Fast'nEasy Cap, Fast'nEasy MEG, and Fast'nEasy TMS.

Application areas and technical features at a glance

The tutorial looks at the application areas EEG, ERP/EP, MEG, TMS, EEG-fMRI, BCI, sleep EEG, and "eXtreme EEG" and recommends the most suitable caps with regard to the requirements of each application area. MEG acquisition, for instance, requires a cap fitted with flat, demagnetized electrodes. A cap used for combined EEG-fMRI acquisition must be fitted with electrodes that do not touch the subject's skin and whose cables are thermally insulated. BCI acquisition demands caps allowing versatile positioning of the electrodes. To acquire EEGs under difficult conditions, you require a cap that can be prepared very quickly and that is resilient against artifacts.

For each cap, the tutorial gives additional information about its technical characteristics such as the type of electrodes used, the handling of electrode adapters, the replacement of electrodes, and the connection between the cap and the amplifier.

The tutorial also includes a summary comparison of all caps currently available from Brain Products with respect to the application areas mentioned above.

Common characteristics

Last but not least, the tutorial presents the common features of all our standard recording caps, including the material used (rigid vs. flexible) and the cap size and cut (subtemporal vs. infratemporal) and explains the benefits of these characteristics in the context of different applications.

The tutorial can be downloaded from our web site under www.brainproducts.com/downloads.php?kid=21&tab=3 ●

