A typical experiment involving imaging - Components & Workflow

The workflow of a typical experiment involving imaging is composed of several different components. It begins with “Sample Preparation”(sample to sample), where a sample is functionalized for imaging followed by “Image Acquisition”(sample to image), where a selected imaging system is used to digitize the sample . This is followed with “Image Processing”(image to image) , where features of the image are enhanced, removed or restored to facilitate the subsequent “Image Analysis”(image [and optionally annotations] to numerical data), the step that converts pixels to informations. Finally, “Data Analysis”(numerical data to structured data) is the step that gathers numerical data and extracts new information of it, which can then be turned into “Data Representation” (structured data to graphical representation) that visually summarizes information for human interpretation.

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