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Physico-chemistry of protoplanetary disks as seen by the IRAM array

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Abstract. We present arc-second resolution observations of various molecular lines arising from several protoplanetary disks orbiting TTauri and Herbig Ae stars. All disks are significantly spatially and spectrally resolved by the IRAM array. These data not only allow detailed modelling of the physical structure of the observed disks (temperature, density, kinematics and turbulence), but also provide some general trends on the evolution of the disk properties within the spectral type of the central star. This poster summarizes the method of analysis and presents the more important results which will be published in two forthcoming papers.