Cyber-Physical networks promise to identify the spatial diffusion-dispersion phenomena by utilizing sensors to measure the underlying physical phenomenon and using models and information operations executed on computational nodes to estimate the parameters. We propose a projective space that utilizes the parameters of the underlying phenomenon, each of which might be measured or computed or both using multiple sensor and computation nodes. The projective space captures both the sensor variables from spatial domain and computational variables from cyber domain. These variables are related to the parameters of the phenomenon, which themselves are related to each other as per the underlying process. Additionally, these variables satisfy informational relationships that represent their competing and complementary nature, and are also characterized by their error and objective functions. Using projective spaces the design and analysis of a cyber-physical network can be decomposed into two separate parts that can each be rigorously and systematically carried out: (a) sensor and computation node selection and placement, and (b) selection and optimization of information fusion operations.