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封面解读

本封面生动地展示了中国空间站梦天实验舱超冷原子物理实验平台进行全光两级深度冷却实验制备极低温超冷原子的实验过程。主体结构为本文研究的全光纤激光器提供的两对波长为 1064 nm 的交叉光阱激光,正中心的红色圆形气团代表着被冷却的超冷原子气体,在斜向上的淡蓝色通道内,三团密度逐渐提高、温度逐渐降低的粒子团代表着超冷气体冷却时的密度和温度的变化,通道中轴线上,淡蓝色的曲线则是代表了实验验证阶段中粒子团所经历的超冷相变过程(注:为使封面整体美观,两对同心的交叉光阱的颜色和尺寸未严格按实际实验情况来展示)。

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