



山东大学
SHANDONG UNIVERSITY

大型仪器公共技术平台

CORE FACILITIES SHARING PLATFORM

结构成分与物性测量平台

先进材料测试与制造平台

转化医学共享平台

生命环境研究公共技术平台

高性能计算云平台



平台介绍

INTRODUCTION

山东大学大型仪器公共技术平台在学校“大型仪器设备专家委员会”的指导下，采取统筹配置、集约管理、有偿使用的方法，构建符合多校区、多学科的综合大学仪器设备共享体系。

在创建世界一流大学的建设中，高水平仪器平台既是一流学科建设的物质基础，也是学校培养创新型、复合型人才和开展高水平科研工作的关键条件。根据学校学科规划和人才引进的需求，优先对学科通用性需求进行支持，统筹规划并建设高水平校级公共技术平台，配备高端仪器设备，培养并发展专业化技术队伍，面向全校师生统一仪器共享权限、预约方法和收费标准。并围绕某些学科（群），依托学院构建学科共享平台，鼓励实验室或课题组专业设备在条件允许下开放共享，采取统管共享和专管共享的模式，实现统分结合、分类管理，为培养创新人才和开展高水平科学研究工作提供支撑和保障。

具备条件的仪器均纳入“实时管理系统”，运用信息化手段，与校园卡联动，实现网络预约和实名登录，有条件的实行全天候共享使用。用户在培训后获得授权，自主使用仪器开展科研实践。各分平台定期开展系列学术活动，举办技术培训，邀请相关领域的研究学者和仪器应用专家开展前沿讲座、介绍相关技术的国际最新进展和应用，以促进前沿技术的交流、推广和应用。

大型仪器公共技术平台坚持“以科研服务为宗旨、资源共享为主线、技术引领为核心、提升技术能力为重点”的原则，实现大型仪器的专业化管理，推动高精尖仪器设备在科学研究、人才培养中发挥更大作用，为学校“双一流”建设提供条件支撑。



Under the guidance of the “Large Instrument and Equipment Expert Committee” , large-scale instrument public technology platform of Shandong University adopts the method of overall allocation, intensive management and paid use. The aim is to build a comprehensive university instrument and equipment sharing system that is multi-campus and multidisciplinary.

In the construction of a world-class university, the high-level instrument platform is not only the material basis for the construction of first-class disciplines, but also the key condition to cultivate innovative, compound talents and carry out high-level scientific research. According to the needs of discipline planning and talent introduction, Shandong University gives priority to supporting the general needs of disciplines, planning and building a high-level public technology platform, equipping with high-end instruments and equipment, and cultivating professional technical teams. The platform is open to teachers and students of the whole school, unifying instrument sharing authority, appointment method and charging standard. Focusing on certain disciplines (groups), relying on the college to build disciplinary sharing platforms. We encourage the professional equipment of the laboratory or the research group to open and share under the conditions, and adopt the mode of unified management sharing and special management sharing, to realize the integration

and classification management, providing support and guarantee for cultivating innovative talents and carrying out high-level scientific research.

All qualified instruments are included in the “real-time management system” . By means of information technology and linkage with campus card, network reservation, real name login and conditional implementation of shared use around the clock can be realized. After the training, the user is authorized to use the instrument to carry out scientific research practice. Each platform conducts a series of academic activities, holds technical training, invites research scholars and instrument application experts in relevant fields to conduct cutting-edge lectures, introducing the latest international developments and applications of related technologies to advance the exchange, promotion and application of frontier technologies.

The large-scale instruments public technology platform adheres to the principle of "taking scientific research service as the purpose, resource sharing as the main line, technology leading as the core, and improving technical ability as the key", realizes the specialized management of large-scale instruments and equipment, promotes the high-end instruments and equipment to play a greater role in scientific research and talent cultivation, and provides the condition support for the "double first-class" construction of the school.



高性能计算云平台

HPC CLOUD PLATFORM

高性能计算云平台是应用于高性能计算、云计算、大数据、深度学习、数据分析统计的科研需求，构建的一个基于混合架构的硬件平台。计算能力超过 300 万亿次，存储能力超过 1PB。基于容器技术的公共计算平台的管理和应用体系，实现异构架构的统一管理和用户应用定制化。

The High-Performance Computing Cloud Platform is a hardware platform based on hybrid architecture for high-performance computing, cloud computing, big data, deep learning, and data analysis and statistics. The computing power exceeds 300 trillion times and the storage capacity exceeds 1 PB. Based on the public computing platform management and application system of container technology, HPC Cloud Platform realizes unified management of heterogeneous architecture and customization of user applications.

操作指南

MANUAL

01

- 高性能计算云平台的访问与应用均通过浏览器完成。在浏览器（建议 Chrome 或 Firefox 浏览器）地址栏输入平台登录地址 <http://cloud.sdu.edu.cn/login>，弹出登录二维码。

The access and application of high-performance computing cloud platform are completed through browser. Enter the website <http://cloud.sdu.edu.cn/login> in the address bar of browser (recommend chrome or Firefox browser), and the login QR code will pop up.

- 打开山大智信 app 扫描二维码，点击“确认登录”，进入控制台页面。

02

Open the "SHANDAZHIXIN" app scan QR code, click "confirm login" to enter the console page.

03

- 点击右上角“帮助中心”按钮，了解具体的操作流程，开启属于你自己的计算环境吧！

Click the "Help Center" button in the upper right corner to understand the specific operation process and open your own computing environment!

01

高性能计算云平台

HPC CLOUD
PLATFORM //

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| 安装地点 | 山东大学软件园校区数字媒体中心楼二层 |
| 联系人 | 龚斌 万林 |
| 联系电话 | 0531-88391261 |
| 电子邮箱 | wanlin@sdu.edu.cn |

◎ 主要功能特色

- 完全基于互联网访问操作的公共计算系统，全校师生都具有独立的工作环境。已提供十余种通用的计算和分析软件的容器模板和编程环境模板，用户可以通过模板自助创建并自定义的计算实例。可实现容器集群应用。

◎ 主要技术指标

- 约 160 台各型计算节点，320 个 x86 处理器，理论计算能力不小于 300TFLOPS。32 个 Tesla V100 32GB 计算加速卡，统一的专用人工智能软件平台。100Gbps 核心交换网络，校园网互联。1PB 磁盘存储空间。

◎ 基本收费标准

- 基础配置计算实例第一计费梯度的计费标准是 0.08 元 / 核时，第二计费梯度的计费标准是 0.23 元 / 核时；中端配置计算实例第一计费梯度的计费标准是 0.11 元 / 核时，第二计费梯度的计费标准是 0.28 元 / 核时；胖节点计算实例第一计费梯度的计费标准是 0.3 元 / 核时，第二计费梯度的计费标准是 0.58 元 / 核时；异构物理服务器根据携带的加速卡的数量，在上述配置价格之上，每卡增加 0.15 元。



