China aims to eradicate school violence

China’s prosecutors nationwide need to unite with all forces to eradicate school bullying, especially school violence, the country’s procurator-general said Saturday.

“School bullying, especially school violence, has severely hindered Chinese students’ growth and disturbed the order of campuses,” said Procurator-general Cao Jianming.

Cai said that adults suspected of instigating, organizing, or coercing minors to committing crimes should be heavily punished.

Chinese prosecuting departments in 2016 approved the arrest of 1,180 people involved in school bullying and violence, the Supreme People’s Procuratorate said in March.

Prosecutors nationwide filed charges against 678 adults last year suspected of having instigated, organized, or coerced minors into committing crimes.

There have been frequent media reports on school bullying in recent years.

A Beijing mother’s article in December 2016, describing her 10-year-old son being bullied at school, went viral. After having a toilet waste-paper basket thrown on his head and being mocked by other classmates, the fourth-grade boy was diagnosed with acute stress disorder, a mental illness characterized by severe anxiety.

In April 2016, a video went viral showing a schoolgirl being slapped more than 30 times by a group of older girls. Police detained a number of the perpetrators.

China honors scientists ahead of first sci-tech workers’ day

China honored a number of scientists and scientific groups Saturday ahead of the nation’s first science and technology workers’ day, which will fall on May 30.

Liu Yunshan, a member of the Standing Committee of the Political Bureau of the Communist Party of China Central Committee, congratulated the award-winners and greeted some of the country’s science and technology staff at a

ceremony.

Ten groups, including the Daya Bay Reactor Neutrino Experiment team, and 28 people were given the “scientific innovation and advancement award.”

The 28, including military researcher Wang Guozhong, were given badges, while another 254 people, including cancer treatment researcher Ding Lieming, were given certificates.

The award will be given once every three years.

In his speech, Liu said the CPC Central Committee highly valued scientific innovation and had led China to move towards becoming a world-leading science power.

“Science and technology workers should push supply-side structural reform, focus on the nation’s major strategies and projects, and realize the deep integration of scientific innovation and social and economic development,” Liu said.

Liu said they should be bold and challenge the most cutting-edge scientific subjects, striving to “put forward more original theories, make more original discoveries and make more scientific achievements that lead the world.”

He asked them to follow the example of late Chinese geophysicist Huang Danian, learning from his dedication to science and the country.

Liu also asked Party and government authorities to pay more attention to scientific innovation, and to train and promote more talented people in the field.

“Scientific associations in China should also make efforts to create a sound social environment where people admire sciences and respect innovation” he said.

China’s space telescope to survey Milky Way

Many black holes and neutron stars are thought to be hidden in the Milky Way. Since they don’t emit visible light, or are covered by dust, only X-ray telescopes can find them.

China will soon launch its first X-ray space telescope, the Hard X-ray Modulation Telescope (HXMT), with the aim of surveying the Milky Way to observe celestial sources of X-rays.

“Our space telescope has unique capabilities to observe high-energy celestial

bodies such as black holes and neutron stars. We hope to use it to resolve mysteries such as the evolution of black holes and the strong magnetic fields of neutron stars," says Zhang Shuangnan, lead scientist of HXMT and director of the Key Laboratory of Particle Astrophysics at the Chinese Academy of Sciences (CAS).

"We are looking forward to discovering new activities of black holes and studying the state of neutron stars under extreme gravity and density conditions, and the physical laws under extreme magnetic fields. These studies are expected to bring new breakthroughs in physics," says Zhang.

Compared with X-ray astronomical satellites of other countries, HXMT has larger detection area, broader energy range and wider field of view. These give it advantages in observing black holes and neutron stars emitting bright X-rays, and it can more efficiently scan the galaxy, Zhang says.

The telescope will work on wide energy range from 1 to 250 keV, enabling it to complete many observation tasks previously requiring several satellites, according to Zhang.

Other satellites have already conducted sky surveys, and found many celestial sources of X-rays. However, the sources are often variable, and occasional intense flares can be missed in just one or two surveys, Zhang says.

New surveys can discover either new X-ray sources or new activities in known sources. So HXMT will repeatedly scan the Milky Way for active and variable celestial bodies emitting X-rays.

Zhang says other countries have launched about 10 X-ray satellites, but they have different advantages and therefore different observation focuses.

"There are so many black holes and neutron stars in the universe, but we don't have a thorough understanding of any of them. So we need new satellites to observe more," Zhang says.

The study of black holes and neutron stars is often conducted through observing X-ray binary systems. The X-ray emissions of these binary systems are the result of the compact object (such as black hole or neutron star) accreting matter from a companion regular star.

By analyzing binary system X-ray radiation, astronomers can study compact objects such as black holes or neutrons stars.

How do the black holes or neutron stars accrete matter from companion stars? What causes X-ray flares? These are questions scientists want to answer, and China's new space telescope might help.

Lu Fangjun, chief designer of the payload of HXMT, says the space telescope will focus on the Galactic plane. If it finds any celestial body in a state of explosion, it will conduct high-precision pointed observation and joint multiband observation with other telescopes either in space or on the ground.

Trial reopens for loan shark stabbing case in east China

A higher court in east China's Shandong Province on Saturday officially began reconsideration of the case of a son who stabbed and killed a violent debt collector in his mother's defense.

The defendant, Yu Huan, was sentenced to life imprisonment on Feb. 17, 2017 by the Intermediate People's Court of Liaocheng City.

Yu and three plaintiffs appealed after the trial.

The Shandong Provincial Higher People's Court accepted the appeal on March 24, 2017.

On April 14, 2016, more than 10 people went to Su Yinxia's company in Guanxian County in Shandong to collect payment for loan sharks, allegedly insulting Su and her son Yu Huan.

Police arrived at the scene but Yu later stabbed four of the debt collectors including Du Zhihao, who died the next morning.

In a statement issued March 26, the Supreme People's Procuratorate pledged to review the case to determine whether Yu was acting in self-defence and investigate possible dereliction of duty by police officers involved.

The retrial mainly focused on the reason of the appeal, the facts ascertained in the first trial, and some new evidence from forensic investigations. The mother, Su Yinxia, served as witness in court.

More than 100 people attended the public retrial on Saturday. The verdict will be announced another day.

China launches satellite navigation positioning system

China on Saturday launched a national satellite navigation and positioning system. It is the largest in the country and boasts the widest coverage.

Li Weisen, deputy director of the National Administration of Surveying, Mapping and Geoinformation, said that the system consists of 2,700 base

stations, a national database center and 30 provincial level database centers.

The system, featuring faster speed, higher accuracy and wider coverage, will be compatible with other satellite navigation systems, such as the BeiDou Navigation Satellite System and Global Position System (GPS), Li said.

According to the administration, the system is able to provide positioning service to transportation, emergency medical rescue and city planning and management.